NOT an official Amstrad publication!!

BRITAIN'S LEADING MAGAZINE DEVOTED TO THE AMSTRAD CPC 464, 664 AND 6128

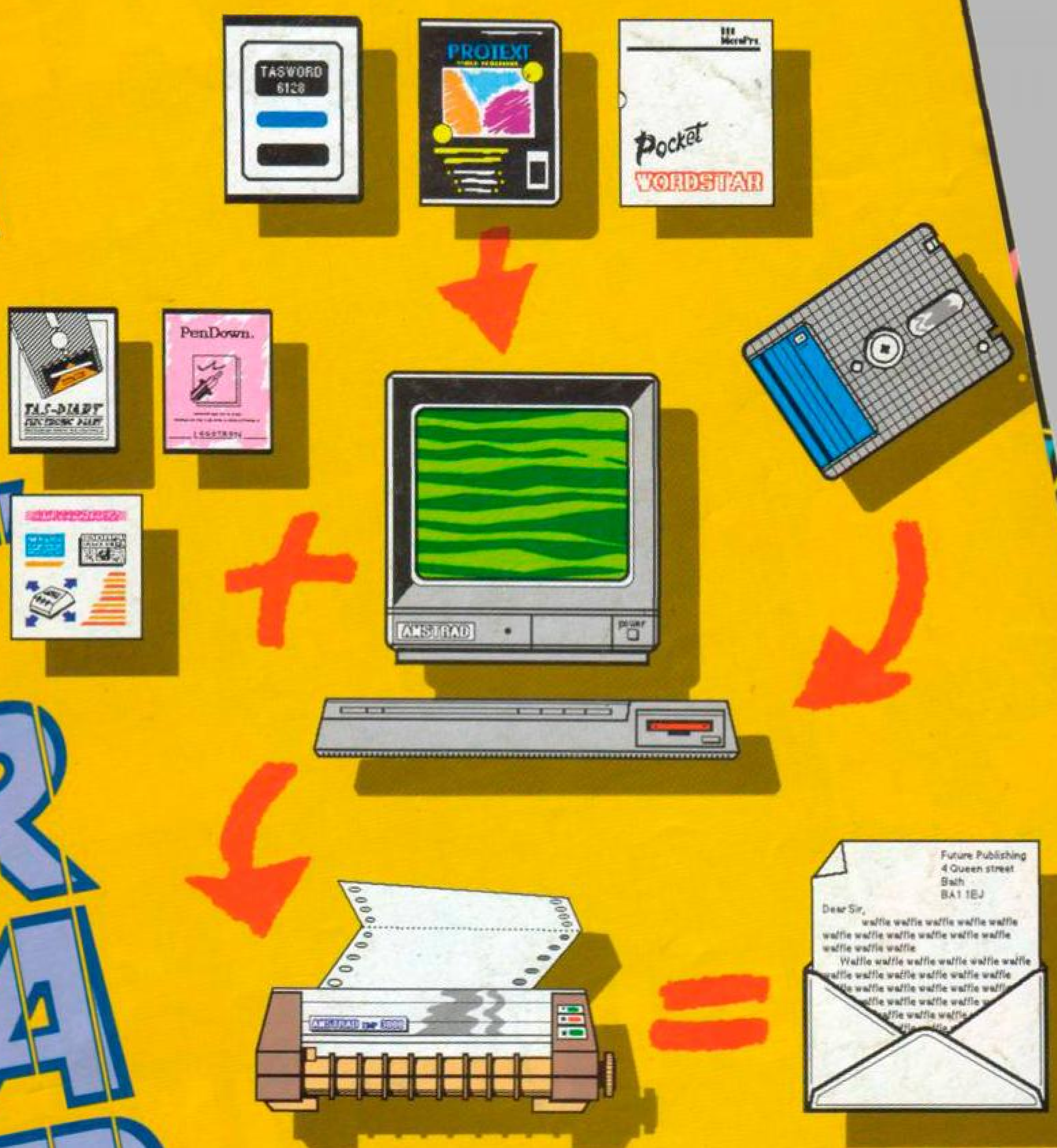
No. 23 AUGUST 1987 £1.25

AMSTRAD ACTION

THE MOULD-BREAKING MAGAZINE FROM FUTURE PUBLISHING

WORDS WORK

Stretching mind and machine to get the best from your printer and word-processor



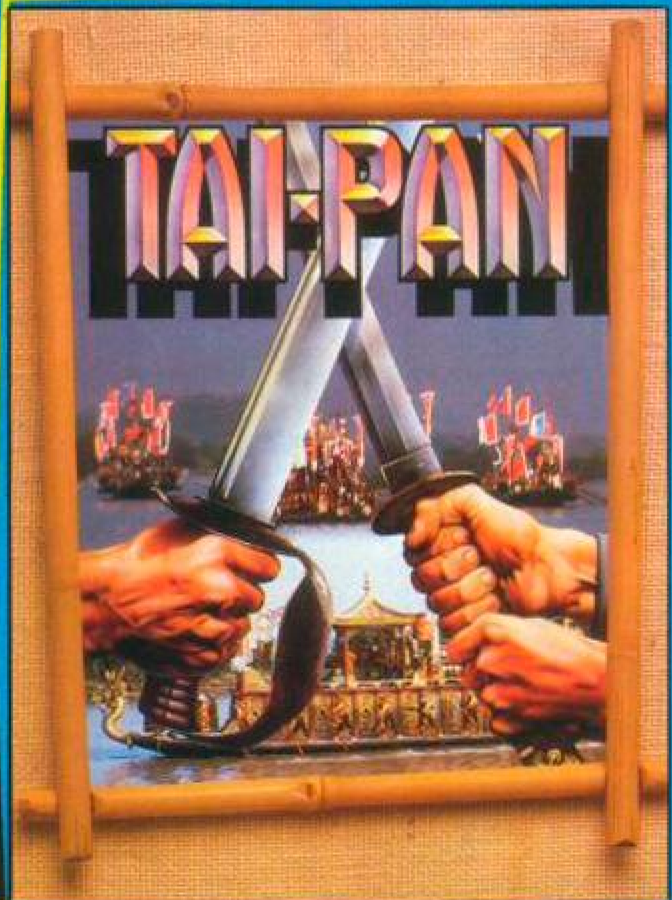
MAG MAX MASTERGAME

Mega-blasting robot who'll blow your joystick away

UTILITY TYPE-INS

The best little listings get Serious and look good too

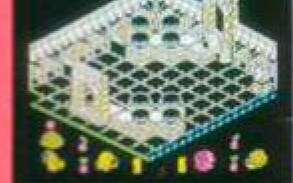
THE ART O







From the author of SHOGUN, James Clavell, comes **TAI PAN** and a terrific new game packed with action and stunning graphics. TAI PAN is the exciting story of a man and an island. Become Dirk Struan – a pirate, a smuggler, a manipulator of men achieving riches beyond imagination. Enter a world of blood, sin, treachery, conspiracy and murder – a game of Grand entertainment!



Authors of No. 1 Blockbuster, Batman, Jon Ritman and Bernie Drummond present **'Head over Heels'** – Hi! My name's Mr. Head. Some say I'm the one with the brains but I don't think my flat footed friend would agree. I'm a real sharp shooter, but without my pal Mr. Heels I'd get nowhere fast . . . or slow! I can jump like a flea and even glide but Heels is the Daley Thompson of the two of us – he's FAST! Together, if we can find each other, we really do make an awesome twosome, and that's the only way we can overcome the emperor Blacktooth.

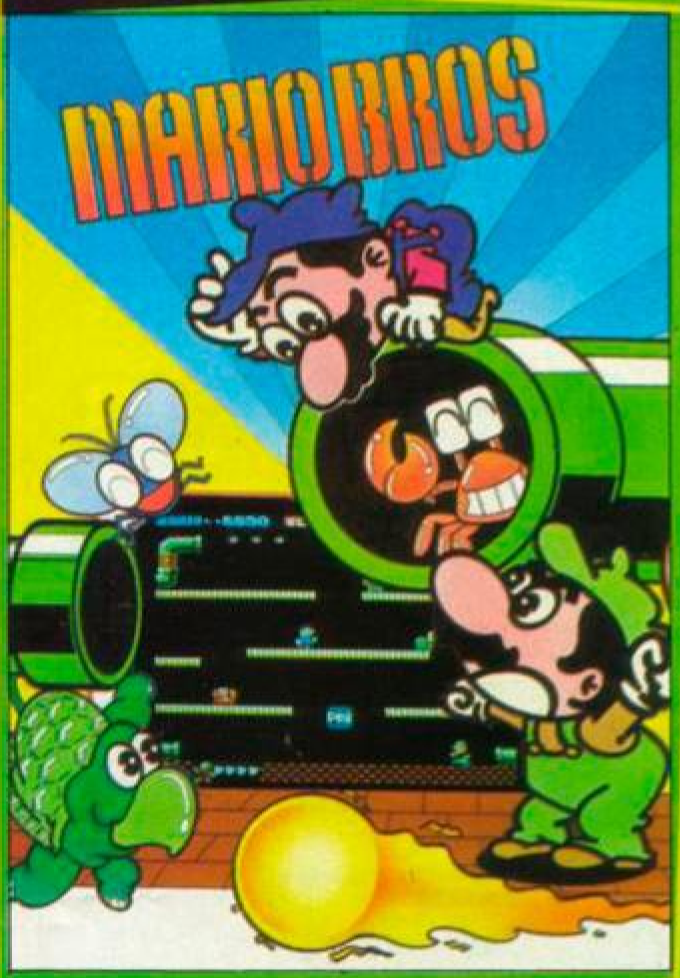
IS PLAYING T

Screen shots taken from various computer formats.

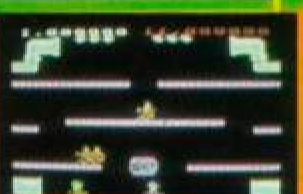
OCE

Ocean Software Limited · 6 Central Street · Manchester M2 5NS · Telephone

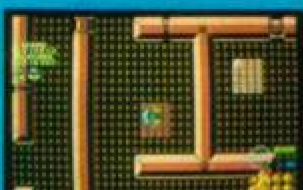
OF GAMES







Now hot from the arcades comes Nintendo's Mario Bros for your home computers featuring Fireballs, Sidestepper, Fighterfly and of course – Mario and Luigi! Flip those pests and kick 'em off the pipes, but don't lose your footing on those slippery floors. Play as a team or against each other; either way you're in for a scream with Mario and Luigi – the **MARIO BROS.**



I took on the Mutants knowing I was armed to the teeth with missiles, mines, torpedoes and more . . . I could even choose where I wanted to fight! How could I lose? . . . How DID I lose? I've never seen anything like it . . . they came at me in droves, in swirling gases, in forms spinning a deadly gossamer and there were more to come. I know now that one form of Mutant will never escape a well planned pattern of mines. It's just the beginning . . . but I must build the ultimate weapon or I'll NEVER be rid of them all! **"An essential purchase – miss it and you're missing something special" – Zzap**

HE WINNERS!

SPECTRUM £7·95 COMMODORE £8·95 AMSTRAD £8·95 – *EACH*

: 061 832 6633 · Telex: 669977 OCEANS G · Facsimile: 061 834 0650

THE LINE-UP

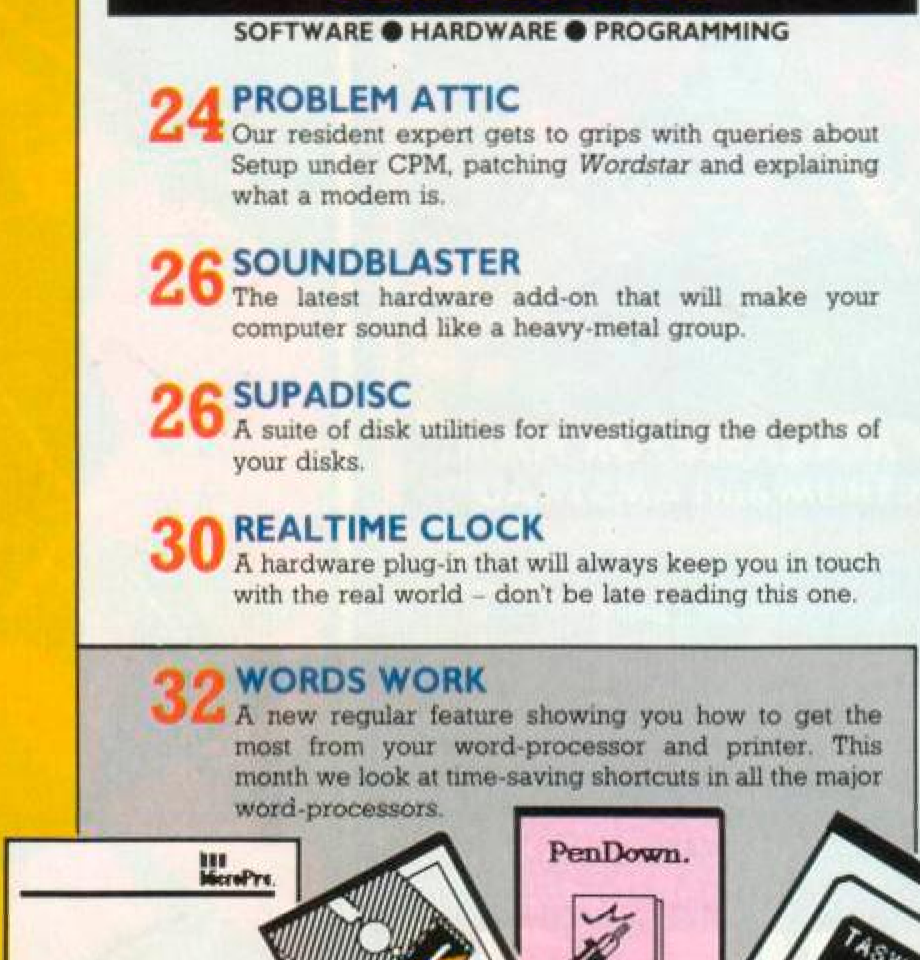
AMSTRAD ACTION AUGUST 1987

FRONT END

NEWS ● LETTERS

SERIOUS SIDE

SOFTWARE ● HARDWARE ● PROGRAMMING



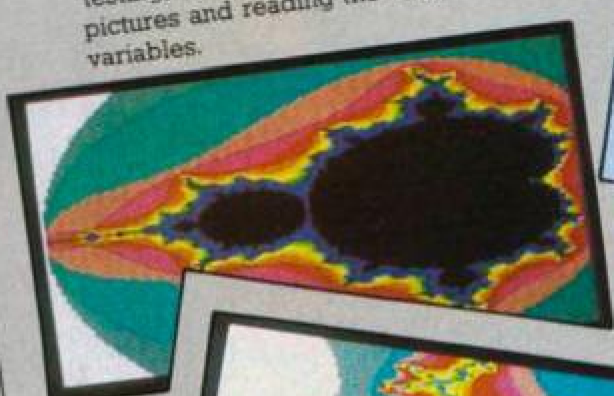
ACTION & ADVENTURE

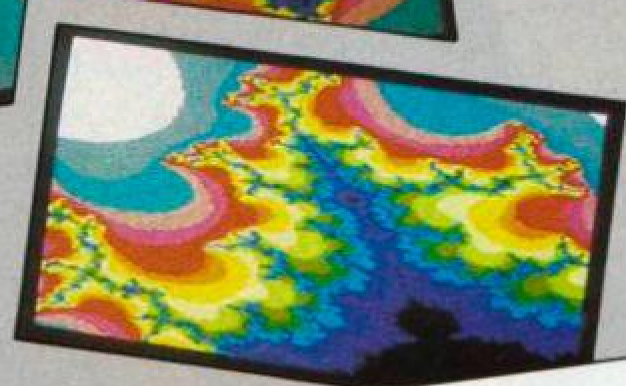
GAMES ● MAPS ● PILGRIM



INTERACTION

CREATED BY YOU AND FOR YOU





WRAPPING UP

THINGS TO BUY ● BYE

Tourist lifeline

Bonsoir, mesdames et messieurs; Good evening, ladies and gentlemen; Guten Abend, meine Damen und Herren; Howdy, pardner. Now over to Bath for the votes from the *Amstrad Action* jury – tourists 0 points.

In a city like Bath tourists are a nightmare. All the restaurants and pubs are crowded; shopping is like the start of the London Marathon.

If you're nodding your head and agreeing with me, I'd like to throw another thought at you: the only thing that keeps the CPCs alive is the European market which most of those affluent tourists create.

It's a fact of life that if the CPCs weren't the number-one home computer in Europe, it probably wouldn't be worth the while of Amstrad to produce them or software houses to support them to the extent they do. The CPCs are probably the most truly international machine (with the exception of America) and here at *AA* we are fully aware of it.

We get letters from Ireland, Scandinavia, Holland, France, Germany, Poland, New Zealand, Australia, South Africa, Greece, Spain and others – all with thriving CPC markets. So I'd like to say a special hello to all our international readers. We won't forget you're out there, because you're important to us and the rest of the industry.

Readers from all nations will be interested in the results of our questionnaire. For highlights turn to the news pages. Find out what sort of company you've been keeping.

Well, I'm off to do a raindance for the tourists, because it's persistently drizzling outside. As usual the British summer is doing an excellent job of driving people indoors to use their computers and I'm doing my bit to keep them there. Hi-yo-yo-yo-yo hi-ya-ya-ya-ya wooo woooo!

Bob

Amstrad Action
Future Publishing Limited
4 Queen Street
Bath, BA1 1EJ

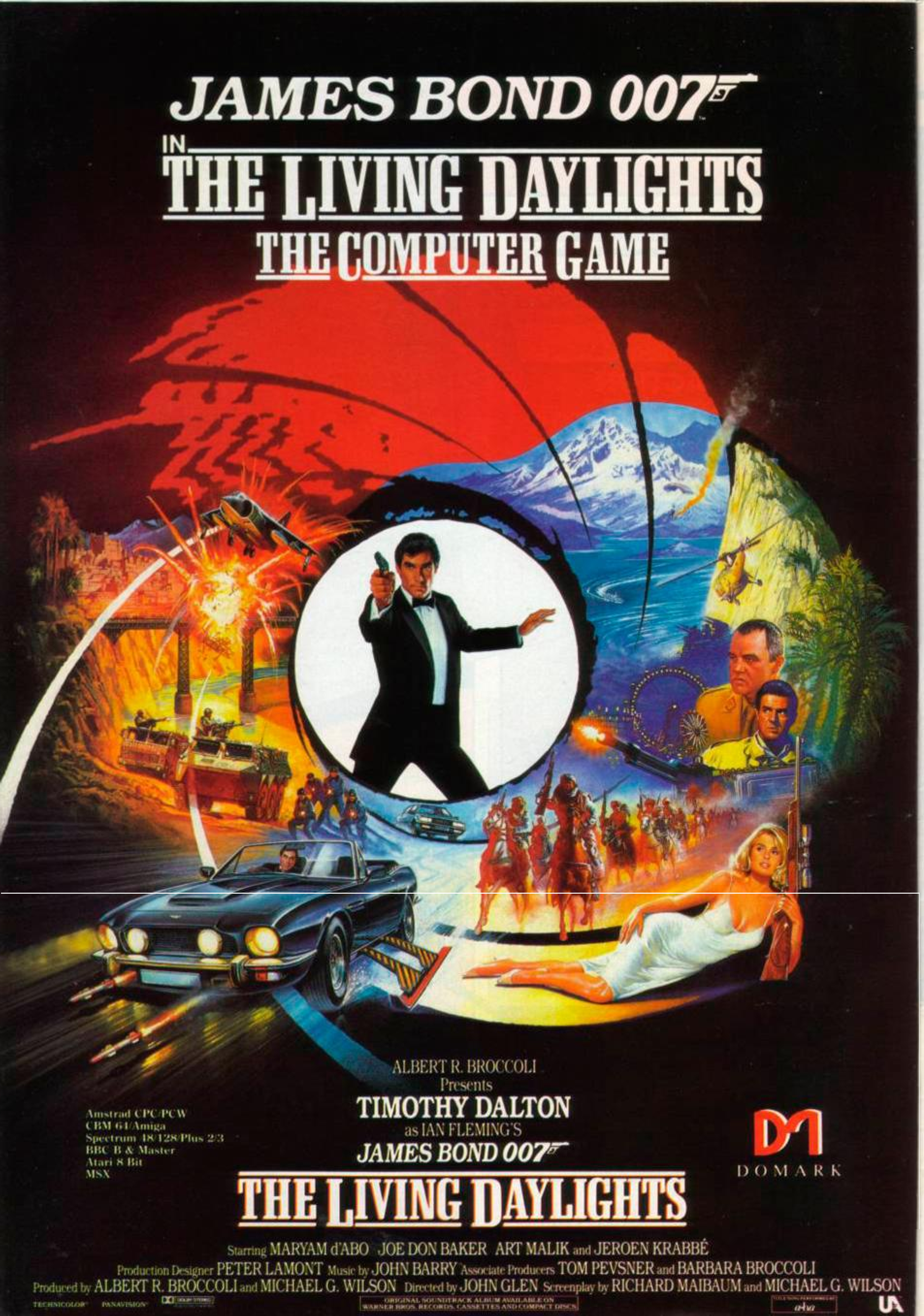
Telecom Gold 84:TXT152
Fax (0225) 44 6019
Prestel/Micronet 045 874 011
Telephone (0225) 44 6034

Editor: Bob Wade
Production Editor: Jim Nagel
Technical Editor: Richard Monteiro
Art Editor: Trevor Gilham
Assistant Art Editors:
Ollie Alderton, Angela Neal
Publisher: Chris Anderson
Production Assistant: Diane Tavener

Subscriptions: Carrie-Anne Porter
The Old Barn, Brunel Precinct, Somerton, Somerset, TA11 7PY
Telephone (0458) 74011

Advertisements: Mike Carroll
Eardley House, 182 Campden Hill Road, London W8 7AS
Telephone 01-221 3592 Telex 895 0511 OneoneG ref 130 49001

Cover photographs: Anthony Spinks ABIPP, AMPA Studio Seventy, Langport, Somerset
Colour origination: Wessex Reproductions, 325 Wells Road, Bristol BS4 0QL
Printing: Redwood Web Offset, Yeomans Way, Trowbridge, Wilts
Distribution: Seymour Press, 334 Brixton Road, London SW9 7AG
Netherlands distribution & subscriptions: Info-Data Computers, Postbus 97, 3800AB Amersfoort. Telephone (033) 63 0187. Retail price: Hfl 7.90



JAMES BOND 007
IN
THE LIVING DAYLIGHTS
THE COMPUTER GAME
ALBERT R. BROCCOLI
Presents
TIMOTHY DALTON
as IAN FLEMING'S
JAMES BOND 007
THE LIVING DAYLIGHTS
Amstrad CPC/PCW
CBM 64/Amiga
Spectrum 48/128/Plus 2/3
BBC B & Master
Atari 8 Bit
MSX
DOMARK
Starring MARYAM d'ABO JOE DON BAKER ART MALIK and JEROEN KRABBÉ
Production Designer PETER LAMONT Music by JOHN BARRY Associate Producers TOM PEVSNER and BARBARA BROCCOLI
Produced by ALBERT R. BROCCOLI and MICHAEL G. WILSON Directed by JOHN GLEN Screenplay by RICHARD MAIBAUM and MICHAEL G. WILSON
TECHNICOLOR PANAVISION
ORIGINAL SOUNDTRACK ALBUM AVAILABLE ON WARNER BROS. RECORDS, CASSETTES AND COMPACT DISCS
a-ha
UA

REACTION

You get the last word on the previous issue ... and the first words of this one. Keep those cards'n'letters comin' in! Send to: Reaction, 4 Queen Street, Bath, BA1 1EJ. You're welcome to use electronic mail – 84:txt152 on Telecom Gold or 045 874 011 on Micronet – but do mention "Reaction" as well as your own name and Earth address.

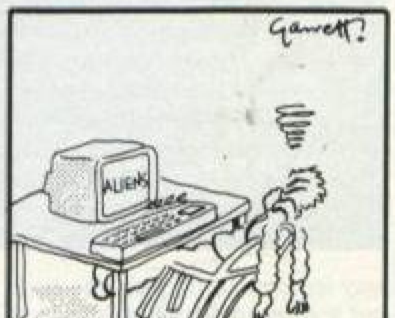
We cannot possibly reply individually, so please don't be offended: what we are busy writing is the next issue of your favourite magazine. If you have problems with subscriptions or mail-order, please write direct to those departments, which remain at the Old Barn, Somerton.

Don't be alienated, but...

I recently bought Electric Dreams' *Aliens* on disk. I just cannot progress any further into the program. All I seem to do is kill the warriors that appear on the screen. I have not come across any face-huggers or queens that should appear, or been able to get to the armoury or queen's chamber. Could you please help me and put me in touch with someone that could tell me what to do? I would be extremely grateful.

P Winter
718 Harrogate Road
Bradford, W Yorks, BD10 0QE

Since you're the first out of the Reaction bag this month, Paul, we'll make no weary remark about how we keep saying we just cannot (if we are to write next month's mag) give individual answers to all the questions we get about games problems – not even if you enclose a stamp. All we can say is watch the Helpline for someone offering the expertise you crave.



"THAT NEW GAME OF HIS KEEPS HIM QUIET FOR HOURS..."

☎ !

We do get phone calls from our loyal readers! One this morning was trying to decide between Starstrike II *and* Mercenary. *He wanted us to read out the scores and good and bad news from* AA *12. Ordinarily we'd have said, as politely as possible, no time. But this was international: a Japanese lad in Holland.*

For the cost of the call he could have bought both games.

Off the bottom shelf

All the time I've had my Arnold I've read boring stuffy Amstrad magazines, ignoring the brilliant fabbo *AA* on the bottom shelf. Only now – *AA* 20 – have I found the one ace magazine for me. What can I say? I have never read better game reviews, type-ins, pokes and maps or little round blobs with legs rushing around the page. Congratulations to Alex Gough and Derick Braithwaite on their great type-ins in *AA* 21.

Could you tell me the keys for Rajiv Gatha's one-liner game *Star-dodging* in the same issue? I can go only left.

I'd like a penpal. I'm 12 years old and own a 464. I'm into playing games and sport.

Ben Thompson
3 Swift Road, Moor Park
Bamford, Rochdale, OL11 5RF

Welcome to the action on the bottom shelf, Ben. Use the Z and X keys: that's the meaning of the 71 and 63 in the Inkey commands. If those don't work, you've mistyped something. The listing is correct as printed.

Cover love otherwise

I totally disagree with Barry Marks (Reaction 21). The *Amstrad Action* covers are some of the best I've ever seen. They are original, funny and have a lot of imagination. Please don't make the covers into billboards for advertising games.

The new look is great. Tell the Pilg to keep up the good work with the programming. Any chance of a beginners' assembly course?

Niall Dunne
Waterford, Eire

How many other readers want such a course?

Double your joy

The Amstrad 464 has only one joystick port, so if you want to play with two joysticks you need an interface. Some friends at school said you can purchase an Amstrad joystick which allows another joystick to be plugged into it. This is just what I am looking for. Could you please print details?

Richard Lombard
Chingford, London E4

You're talking about the Amsoft JY-2 joystick, available direct from Amsoft in Brentwood. It's not one of our favourite joysticks. Alternatively go for one of the splitters mentioned in the Christmas AA.

Crystal ball

Please could you try and give release dates for new games?

David Summers
Redditch

We would if we could rely on the dates we're told! Sometimes we get advance copies, but 90% of the time, when the review appears, the game is on the streets. That's the most reliable system we can offer.

Disk wish

I have a 464 and wish to purchase a disk drive. Can you please tell me what disk drives are available and how much they are?

Also can you tell me which Infocom games work with the 464 with disk drive and how much they are?

Andrew McCartney
Castleford, W Yorks

You'll need the Amstrad DDI-1 as your first drive, costing £150 direct from Amstrad plc in Brentwood, Essex, or at various high-street shops. This contains the essential interface and software such as CPM. For a second drive you have your choice among several manufacturers.

Didn't you read Reaction 18? Or 21, which said to see 18? All Infocom games except the "Interactive Fiction Plus" range now work with all the CPCs.

Games drive man batty

Am I the only person who finds games difficult to get into?

I started off with the superb *Batman*. No complaints of any kind except that it has spoiled me for other games. It gave me a taste for computer games which before I'd been rather sniffy about, so I bought *Tau Ceti, Tomahawk* and *Bounder* but I haven't been able to get anywhere with them.

Tau Ceti looks impressive and obviously has the potential to be a really enjoyable game, but the instructions seem sparse in the extreme, almost as if the author doesn't want me to be able to get into it.

Perhaps this sort of attitude is deliberate. If so, it seems a bit hermetic. Or perhaps I'm missing something that seems obvious to a younger generation? Anyway perhaps you would print my adress in case some charitable and experienced gamester might offer to lighten my darkness.

By the way, I have a PCW but I buy *AA* for info about games.

Mike Harth
45 Bisterne Avenue
London E17 3QR

Copyright on type-ins

When I send you a listing and you pay me for it, are you buying the copyright from me? And if you are, what does this mean for my use of the program or further use of it by you? Say you wanted to use it on a cover cassette: do I get royalties?

Tommy Daffin
South Brewham, Somerset

Yes, we are buying the copyright from you, and that means you should not then submit the program to other publications (although of course you can use it yourself). If someone wanted to sell us only first publication rights, we'd consider it – but the someone would probably find subsequent publishers less interested anyway. The idea of royalties does not apply in the magazine world, where fees are one-off; with books or records or plays, royalties consist of a small fee for each copy sold or each performance, and could dribble on for 50 years.

Hi-last

Please let this be the last letter on the subject of the hi-score pages.

Ricky Ward
Robroyston, Glasgow

Questions questions

What does CPM stand for? Where did the charts go? Why are some of the keys on the computer on the cover of *AA* 20 upside-down? What is Mastertronic's address? Aren't you totally *sick* of *Knightlore*-style games like *Head over Heels*? I am.

Ken Murfitt
Crawley, W Sussex

Control Program for Microcomputers; Digital Research Inc likes to spell it CP/M with a slash but we got fed up with it, like uglyTiresome capital letters in midWord.

Since we dropped the all-purpose form with hi-score etc, not enough readers' chart votes came to make a reliable sample. We don't like retail-sales charts because they don't reflect the games that people actually play and enjoy most.

Ask RpM.

We are often asked where Mastertronic hangs out. Try 8 Paul Street, London, EC2A 4JH.

No, says Bob. Just because they use a 3D format doesn't mean they're the same game. Head over Heels *is packed with new puzzles, characters, control methods, humour, graphics, ...*

Amtlers

I got fed up with games like *Trivial Pursuit* not being available for my Electron, so I splashed out and bought an Amstrad 464.

I used to cast envious eyes over the masses of software for the Amstrad while looking through the pitifully small collection for the Elk. My problem now is sorting through a mountain of software which (if the free twelve-pack is anything to go by) is 90% rubbish. I also purchased *Thrust II*, *Hyperbowl*, *Strike* and *Rasterscan*. Now maybe I'm hamfisted but I couldn't get to grips with any of them, especially *Strike* (nice music, shame about the game).

Where's Amstrad's answer to *Galaforce*, *Repton*, *Citadel* or even good old *Snapper*?

MJ Hopewell
Arnold, Nottingham

That free twelve-pack is mostly early Amsoft stuff, and you're right: by today's standards it is mostly rubbish.

Thrust *etc aren't easy. We wouldn't want you to feel unchallenged, would we? We won't be so rude as to agree with your "hamfisted" remark.*

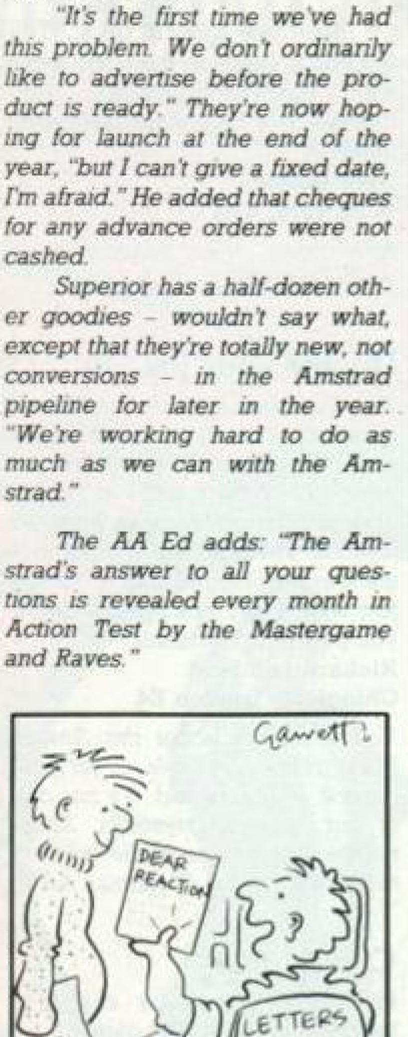
Galaforce: *try* Classic Axiens. Snapper: *play* Classic Muncher. *Superior Software started a Citadel conversion, but seems to have abandoned it.*

As for Repton 3, *Steve Botterill, the general manager of Superior Software, is a bit embarrassed about the invisible Amstrad version. The programmer was far along on the work and promised to be ready for launch last November, and ads – which have to be prepared long in advance – went ahead. (Most of them involved just the word Amstrad on general ads; the Beeb and Commodore versions were out on time.) Then the programmer went down with home problems.*

"It's the first time we've had this problem. We don't ordinarily like to advertise before the product is ready." They're now hoping for launch at the end of the year, "but I can't give a fixed date, I'm afraid." He added that cheques for any advance orders were not cashed.

Superior has a half-dozen other goodies – wouldn't say what, except that they're totally new, not conversions – in the Amstrad pipeline for later in the year. "We're working hard to do as much as we can with the Amstrad."

The AA Ed adds: "The Amstrad's answer to all your questions is revealed every month in Action Test by the Mastergame and Raves."



"DOES THIS 464 OWNER REALLY COME FROM ARNOLD?"

Our proj in your hands

I am writing to ask if you can send me as much information as possible on Amstrad computers and games. This is for my prodject in English at school. I would be very pleased if you could help me.

Richard Reynolds
Ipswich, Suffolk

Well, Richard, we do produce a magazine every month called Amstrad Action, packed with exactly the sort of information you ask. Good luck with your project!

Elite and *Gauntlet* poke

Should the disk version of *Elite* have all the ships shown on the ship identification chart? Mine has only the standard tape-version ships. Is this a fault?

In *AA* 19 you printed a poke for the disk version of *Gauntlet*. I carefully typed it in and checked it thoroughly, but when it ran, the screen filled with patterns then it printed "read fail" and the game would not run after that. Luckily I was able to get another copy from a friend. There must be other stricken users out there with no *Gauntlet* to play.

JD Hicks
Bangor, Co Down

Firebird did not implement all the ships on the disk version of Elite *– the original hope turned out not to be feasible.*

As we warned last issue on page 67, there seem to be two versions of the Gauntlet *disk and no easy way to tell them apart. Do not use the disk poke from AA 19 – it corrupts one of these versions. The disk poke printed in AA 18, however, is safe because it's reversible.*

Zeal again

What a great magazine. It's easily the best to reach our distant shores, even if it does cost $5.25.

As if French frogmen and the Americans on our backs isn't enough, here are a few of the prices we have to put up with. Remember $NZ 3 = £1.

CPC 6128 + colour mon	$1895
DDI-1 disk drive	$795
DMP 2000 printer	$795
AMX Art and mouse	$250

Never mind, sunshine and fresh air is cheap and plentiful!

Russell Parkinson
Tirau, New Zealand

How do I hack?

I'm sure many of your devoted readers are mystified by the birth of the poke. How do we find pokes? One thing that's certain is your popularity rise (if possible to better your status) were you to publish an eight-part course, maybe similar to Booting CPM (in issues 10 to 17). How about it, *AA*? Please open the door to this elite felicity.

Matt Montiegue
Salisbury, Wilts

Dozens of readers ask the same! Poke-finding is more an art than a science. But first you'd need good knowledge of Basic and a grounding in machine-code. You'd have to know the ins and outs of the machine. And of course you must know how the game works, so that when working through the code you know what each section affects.

With protection systems, it's rather like asking how to solve puzzles. You have to put yourself into the mind of the programmer.

So it's a knack, Matt – something you can't be taught in eight easy lessons. Learn machine-code and it comes with time.

Elderly Epson

I consider that I am due a few apologies from you. I am an old-age pensioner with limited resources and time, and your magazine has helped me to waste both.

First will you please ensure that when you state a program is "Epson-compatible" you include a definition of what you mean. I have an Epson MX80 and surely any Epson should be Epson-compatible!

Your review of *Print Master* (*AA* 19) said it is Epson-compatible. I don't blame you entirely for this, for that is what Siren Software states in its advertisements, but as far as I am concerned it is not true. I bought *Print Master* on the strength of your review as I was particularly interested in the NLQ facility, but this just does not work with my printer. I returned the disk to Siren and got another with a customization program on it but this does not work either. The listing reveals that I require quadruple-density graphics, which the Epson MX80 has not got!

In *AA* 20 there is again a type-in for a disk inlay claiming to be Epson-compatible. This time forewarned by previous failures I checked the control codes and found that some I do not have, so on this occasion I saved myself a bit of effort.

GW Duell
Scarborough, N Yorkshire

You're right: the phrase "Epson-compatible" is slung around a bit too loosely. (Furthermore it's a mouthful.) What it means is that the codes originally used by Epson printers to do their various tricks have been adopted by other makers. Most of these start with the Escape character. For instance Escape-E (Ascii 27, 69) starts printing in bold and Escape-F turns it off.

Trouble is that your MX80 is itself quite the OAP by computing standards. New features are

Rare numbers

I have every issue of *AA* up to and including issue 14. I have sent away to *AA* for issues 16 and 17. Is anyone willing to sell issues 15, 18 and 19 for £2 each?

Alvin Thompson
Hebburn, Tyne and Wear
☎ 091-483 5117

You can still get issue 19 from us, so don't pay £2. The current out-of-print list is 1, 2, 3, 6, 11, 13, 15 and 18. Back issues are kept at the Old Barn.

constantly being invented. "If you were using our LQ-2500, which is one of our flagship lines at the moment," said Epson's technical support manager Bob Dobbs in Wembley, "you'd see what you're missing besides quad-density graphics!"

Sensibly, however, the Epson policy is to add on, not remove. In general a printer simply ignores Escape codes it does not understand. So give your printer something written for the flagship and it will at least do its best.

The MX80 went on sale in the UK in 1979 and stopped in 1982. It started off as Type 1, which did not have quad-density graphics, and finished as Type 3, which did. You don't say which type you have, but you can get the set of three upgrade chips for around £29 from various dealers such as Watford Electronics, (0923) 37774, or direct from PNP Micros, (0706) 21 7744 or 01-677 7631.

In reviewing, you can't expect us to test a product against every conceivable model of printer – there just wouldn't be time or office space. This is one reason we give phone numbers on serious-software articles.

You'll be glad to hear Siren has added a line about quad density to its Print Master ads, commenting, "This is what puts off a lot of software companies from releasing printer utilities."

We'll all print the phrase "Epson-compatible" more judiciously in future.

Dragon roars back

Slaying the Dragon indeed! How can someone who admits that he knows nothing about it laugh at the Dragon? (Kenny Moorhead, Reaction 21). The Dragon may not be a brilliant computer and it does have its bad points, but so do all the others. The Amstrad tape loading system is the worst I have ever used, not a patch on the Dragon system, which is very reliable. And the disk drive on the 6128 is so slow! The Plus 4 was even less successful than the Dragon and survived only due to the massive power of Commodore's other systems. So why not laugh at them?

If Mr Moorhead would care to write to me or any other Dragon user (yes, we are still here and we still have our *Dragon User* magazine) we would be pleased to introduce him to the Dragon. The Dragon is still here, due mainly to its reasonably large user base and certain excellent companies (thank you, Microdeal), and we shall be around for some time yet to come.

Stephen Wood
52 Downsway, Springfield
Chelmsford, Essex, CM1 5TU

And, Stephen, you may even have provided comfort to some CPC owners worried about the immortality of their machines.

Unlucky or guinea-pig?

Are software houses cutting production costs by "employing" the customer as a quality-control? I have over the last few months purchased a game compendium disk, a utility disk and two games tapes – all from different companies. Both the disks and one of the tapes were faulty. One disk had to be returned twice before I got a working copy. In no case was I offered a refund for the cost of packing and postage – which obviously increases the cost of the item to me.

Have I just been unlucky or is there a policy by the software companies which says, "Never mind the customer as long as I can make the biggest profit"?

MJ Ellick
Nailsea, Bristol

Methinks you've just had unluck. Most software houses do care about their customers. Error can occur in duplication.

Align and sign

The azimuth on my tapedeck is out of line. Please could you recommend an adjuster, the best?

What do you think of my new improved handwriting?

S Evans
Pencoder, Dyfed

Interceptor Micros' £9 head-aligning kit, the only one we've used, consists of a cassette, a little screwdriver and paper pointers – and a simple game, Chopper Squad, *to test loading. Interceptor is at Mercury House, Calleva Park Industrial Estate, Aldermaston, Berks, RG7 4QW; phone (07356) 77421.*

Your writing is wonderful, apart from the signature. I hope I guessed the surname aright. Is "S" a boy or a girl's name? Initials (datelessness having been done to death) are your lettitor's pet peeve. People might as well have a serial number.

Alas, poor *Amtix*

Thanks, *AA*, for clearing up the *Amtix* matter for all the now ex-*Amtix* readers (like many, I thought it was perhaps an April-fool). I've always read both. It's a great shame that one of the two truly independent mags had to go. It's always good to get at least two different views before deciding which piece of software or hardware to buy.

Computing with the Amstrad, the magazine that is to carry some of *Amtix*'s old features, can never really claim to be truly independent, mainly because the same company that owns and publishes it owns the official Amstrad mag *Amstrad User*.

I suppose I have a claim to fame. I wrote *Amtix*'s last letter of the month and got zilch for it (cries of "Shame!", please), whereas after some persistence and near suicide I got a lovely copy of *Batman* from you when my letter was a software winner.

John Gigney
Cold Norton, Chelmsford

■ The reason why *Amtix* ceased publication, I think, is that it just couldn't compete with *AA*. If it had had a more adult approach, some excellent type-ins, better reviews, ... then just maybe.

M Fleming
Birmingham

■ I was a former *Amtix* reader, and it came as a great shock to me to be told at such short notice that *Amtix* was folding up. I used to enjoy laughing about the anti-*AA* letters printed in the mag. A magazine called *Computing with the Amstrad* is now printing *Amtix*'s best features like Amtips. But it will never be the same. I must now read *AA* and I find it's brilliant.

Jonathan Cale
Exeter, Devon

■ I used to read *Amtix* cover to cover, enjoying it very much. Then they announced the terrible news. After wiping the tears, I read there would be a few familiar points in *Computing with the Amstrad*. Apart from the *Amtix* bits – restricted to only seven reviews – the rest was boring. So I turned towards *AA*, not very keenly though, after hearing how bad it was in *Amtix*'s letters pages. But I found I enjoy your magazine quite a bit (not as much as *Amtix* of course) and I almost read it from cover to cover.

Luke Rea
Crawley, W Sussex

■ I started buying *AA* only at Christmas, because I saw the cover tape. I coughed up my cash and found it much better than my usual Amstrad magazine *(ACU)*. When I saw the reviews and the large Cheat Mode section I immediately ran to the newsagent and cancelled *ACU* and ordered *AA*.

Mark Scott
Blackley, Manchester

■ Thank you for the warm welcome to us forlorn *Amtix* readers in *AA* 20. The one thing that is missing in *AA* is zany competitions. You might say we have had our comps cut off and it's making our eyes water! *Computing with the Amstrad* wouldn't know a competition if they fell over one, so if you want to mop us 18,000 you know how you can do it.

I was a subscriber of yours but didn't renew because it arrived regularly a week after it was in WH Smith. Good mag, poor distribution. Anything you can do to improve the situation?

GJ Bostock
Urmston, Manchester

How long ago was your subscription? We recently tucked in (at random) a survey form with subscription copies as they were posted, and very few produced complaints such as yours: 90% reported their copy arrived promptly. The official on-sale date is the first Thursday of the month, and subs copies are posted six days earlier.

It's nice to hear that Amtix *readers are finding a happy home with us. We look forward to many more joining them and enjoying these pages.*



"IT'S A GREAT GAME BUT RATHER TOO MANY HAZARDS"

Disks and bolts

Have you been into a do-it-yourself store and seen those boxes for holding bolts etc? You'd have noticed the similarity to a disk box. The shop sold them at under a pound.

Simon McNally
Melksham, Wilts

Train Toot to carry copy flat so print won't fall off.

Sugar, of course

After giving *Gauntlet* 92% how could you give only 90% to *Sentinel*? This game is outstanding – originality and enormous 10,000 locations. And how on earth could you give only 71% to *Super Cycle*? This game was also very good and deserved a Rave at the very least.

I would like to know what people's favourite food seems to be when sitting at their keyboards. Mine is pizza and a juicy big hamburger.

Gareth Jones
Whitstable, Kent

"Absurd to moan about 90%," says Bob. "You can't get a much better endorsement. And I don't think 71% suggests a duff game. I don't expect everyone to agree with my ratings because people like all sorts of different games. We aren't the judge and jury for a game, just the lawyers acting for both the prosecution and the defence – the public decide a game's fate."



"IT'S IN CASE HE GETS LOST"

Anyone for Guinness?

I have so far bought 149 games – all originals. I have never copied a game in my life. Is this a record?

Snoopy & Woodstock
Heswall, Merseyside

Acute, giánt problem

Horrible foul-up in *AA* 20! It has horrified the whole Irish *AA*-reading nation. On page 87 in big print your otherwise top mag offers "Tir na Nog". Let me give you Rule Number 1 in the Irish language: the *fáda* or slash always goes up to the right. So *Nòg* should be *Nóg*.

But what had Cúchulainn got to do with Tír na Nóg? Oisín was the son of Fionn MacCumhaill, and it was he not Cúchulainn who went to Tír na Nóg as every Irish person knows. I understand this may be the fault of Gargoyle Games, but before you print anything, please get your facts right.

Go raibh maith, agat agus slán. Translate that if you can!

Mark Lloyd
Naas, Co. Kildare, Éire

You're right: we'll blame Gargoyle! The big print was artwork from the game's package. Our text beneath it omitted accents altogether – but ás yóu seé, we çan do áll śorts íf we try.

Hope your Gaelic ain't rúde!

Eternal life again

I partially agree with Steve Seager (Reaction 18) over the difficulty of some arcade games. I think the easiest way round the problem is for the game producer to incorporate difficulty levels and extra-lives controls, giving a chance to complete a game, or at least see a good percentage of it, without spending hours getting killed off on the first few screens.

My other problem is that being new to the Amstrad I have purchased some older games (*Batman*, for instance) and do not have the pokes printed in earlier issues. Could you please print a few older pokes for newer players?

Robert Hackney
Roade, Northampton

Just for you, Robert, (and for Dan Waynman of Denmark and a thousand others) we've compiled a comprehensive Cheat Mode booklet. And to be sure you don't fall behind again, it comes with a subscription. See the special-offers pages.

A role to play

I have recently changed my Commodore 64 for an Amstrad 6128. Could you recommend a good role-playing game, and do you know if *The Bard's Tale* from Ariolasoft is available for the Amstrad?

Tracy Bennett
Horton, Wimborne, Dorset

Good move. Life. (Or watch the Pilgrim's pages.) Ariolasoft's contract with Electronic Arts, originator of TBT, *ended before an Amstrad version was born. You can write direct: 1820 Gateway Drive, San Mateo, California, 94404.*

Intimating immortality

Please remember that as you can now buy a new 464 for under £150 there is bound to be a large number of first-time users, and as such we will need more basic items – things like `?` means `PRINT` and `'` means `REM`. I could not find this info in the manual. Please try to keep up simple type-ins – the one- or two-liners. It does help you to get used to the machine without being bored by long programs.

I ask that the experienced 464 users among your readers will not forget there are always people new to the machine, and remember the excitement *they* had typing in simple programs and finding that they worked – and that they think of programs that will be help to us first-timers.

AR Monro
Peacehaven, Sussex

You must have come upon a lucky local discount. The 464's recommended retail price has always been £199 with mono monitor (add £100 for colour, another £100 for 6128). But we take your point.

Blue doom looms

Help! Has anyone a poke for *Doomsday Blues* that will give infinite strength and fitness? I need to break down the last door in a collapsing room but I haven't got enough energy.

Jerome Chin
Caerphilly

International corner

I was not a regular reader of *AA* until i saw the new design and layouts: well arranged and pleasing to the eye.

Anyone interested in using the 5¼-inch disk drive – with or without knowhow – is welcome to write. There is a small group of Amstrad enthusiasts here. I would love to correspond with anyone in exchange of computer knowledge, especially program behaviours, serious as well as games.

GL Chap
Block 34, 01-173 Strathmore Ave
Singapore 0314

■ I'm living in Poland, in town Kielce. In our country is great interest of the magazines Amstrad: *Amstrad Action, 8000 Plus and PC Plus.*

Piotr Janus
Ul. Klonowa 46/23
25-563 Kielce, Polen

■ I'd like to congratulate you on your excellent use of language – my English teacher says that, even if he doesn't agree with *program* (-mme), *mag* (-azine), *Pilg* (-rim). I have all issues since February '86 and I've noticed that you always become better and even better than better.

Nick Apostolakis
Piraeus, Greece

We do try to maintain a craftsman's respect for the well-designed phrase and properly constructed sentence. Tell your teacher that the simpler spelling program *has become standard in computer parlance; British television can keep the extra -me though Americans get on nicely without it. We presume your teacher recognizes that Greek is the root of the English -gram (as in telegram). Ask him how the useless letters ever crept in anyway.*

■ I spend my life cooped up in a harsh land devoid of CPCs. You may guess that I am in prison. I am not. I am in a public school. I find your mag quite good after the *Aenid* and the *Odyssey*.

Jonathan Leonard Parkes
Rugby



"IT'S A PHONECALL FROM NEW ZEALAND COMPLAINING ABOUT THE COST OF PHONING FROM NEW ZEALAND..."

Macsenbuster

I bought Macsen's game *Blockbusters* in spite of your review (*AA* 7). It's a good game, whatever its limitations, and I really enjoy playing it. So I was very interested in an ad on the inlay for a cassette featuring further sets of *Blockbuster* questions and a question compiler. I sent for it immediately.

Solicitors returned my cheque telling me that Macsen Software has been forced into liquidation.

Do you know any means by which I could get hold of a copy of this program?

Kevin Patton
Hemel Hempstead, Herts

Your best contact is the solicitor again: ask if bankrupt stock is being sold off. We can't remember a supplementary question tape, but maybe someone else knows otherwise?

More modest than this?

After obtaining the modest score of 3,200,500 and reaching level H8 (178) with over 20 lives left on *Yie-ar Kung Fu* I became rather bored and turned my computer off so that I could play *Green Beret*. Can anyone beat this?

HR Hunting
Cleveland

I bet even RpM could beat you at Green Beret *with his computer turned on.*

Several weeks ago I wrote a rather lengthy letter to you in connection with the terminology and complex presentation of computer literature, and I assumed that due either to its length or its adversity that it merited neither mention nor inclusion in your magazine. — *Length.*

Machine-code mystery

I very much like your new-look issue. But you could still improve it by starting a machine-code section for people wanting to learn how to write games.
TJ Hardman
Warrington, Cheshire

Try the book Master Machine-code on your Amstrad CPC 464 & 664 *by Jeff Naylor and Diane Rogers (Sunshine Books, ISBN 0 946408 80 7, paperback £7). If you subscribe to AA, you can have the book free.*

The last hoot

I think poor Toot has a hard time, so I would like to start up the f.f.g.T.n.h (fund for getting Toot a new home). There is no membership fee but all members must promise to give aid to Toot.
Roger Murphy
Glenageary, Co. Dublin

■ I would like to see more of Toot because he is so cute.
Simon Hunt
Gloucester

■ Vote for Toot in the general election of 1991-92. We are fed up with all these boring politicians. Are we going to stand for this much longer? No! Vote the *AA* party; vote for Toot. Manifesto: Make bad computer games illegal.
[no name]
Blackburn, Lancs

■ How angry I am that when anything goes wrong you blame that lovely little pingpong all on legs! It makes me more angry than US Gold's *World Cup Carnival*.
Steven Lunt
Wigan, Lancs

■ *Sugarman* is great. Can you ask S Sarkar (what does the S stand for?) to feature Toot in next month's *Sugarman*, preferably being ripped apart limb from limb slowly by a giant 664-owning cream scone (not essential).

And well done for being the only magazine, tv program etc for not going on about the election non-stop. I predict Ocean's next game will be *Election '87*.
Toby Briant
Hereford

Virgin did release a game, Election, *at £10. You'll be happy to hear we won't bother reviewing it. But watch out for* Yes, Minister.

It's Saurav - pronounced "soo-rav" - and Toot is not helping him write his exams this month...

The last non-letter

Dear Action People,

Oh poo! I've forgotten what I was going to write. Oh well, bye then.
Justin Mason
Sandown, Isle of Wight

This is the 4th time I have written. Please print this!

Helpline

Where eager Amstrad experts volunteer assistance to fellow readers having problems

■ If you too feel helpful, just send us your name, address, phone number (say so if you don't want it to be printed) and subject on which you want to help. Please write on a postcard or the back of a stuck-down envelope to simplify administration here in the office. Send to: **Helpline, *Amstrad Action*, 4 Queen Street, Bath, BA1 1EJ.**

■ If you are asking for help, make direct contact with the appropriate Helpliner - don't pester your usually-patient (but harassed) editor. By post, you must include a self-addressed stamped envelope for the reply; otherwise you won't get one. And if you telephone, stick to socially acceptable hours!

Laser Basic
Trevor Prince, 46 Hillport Ave, Porthill, Newcastle, Staffs, ST5 8JZ

Knight Tyme, Speldome, Pipeline 2, Harvey Headbanger, Alien Highway 2, The Apprentice, International Rugby, Raid, Mutant Monty, Donkey Kong, Sweevo's World, American Football, Jet-boot Jack, Blagger
Roger Murphy, 6 Glenageary Woods, Glenageary, Co Dublin ☎ (0001) 80 6858

Mini-Office II
Craig Paterson, Orchard Mews, Village Road, Gt Barrow, Chester, CH3 7JH ☎ (0829) 40787

adventure programming
Simon Forrester (age 13), **15 Halcroft Rise, Wigston Magna, Leicester, LE8 2HS**

hints, pokes, tips on *Rebelstar, Back to Reality, Apprentice, Knight Tyme, Spellbound, Finders Keepers, Equinox, Get Dexter, Zoids, Sacred Armour of Antiriad, Sorcery Plus, Sentinel, Deactivators* (to level 4), *Aliens, Tau Ceti, Starstrike II, Nexus, Mercenary*
Steve McClay, 32 Lycett Rd, Wallasey, Merseyside, L44 2DA

Basic programming and guidance on routines
Stephen McCormick, 27 Coshneuk Road, Millerston, Glasgow, G33 6JH

writing programs, machine-code, solving problems, *GAC* and mapping adventures, testing adventures and other forms of program, teaching programming, graphics, sound - and almost anything else
IR Murphy (aka Smurf the Warlock), **25 Craven St, Accrington, Lancashire, BB5 0SE**

Batman, Knight Tyme, Thanatos, Harvey Headbanger
Jason Burns, 212 Victoria Rd, Higher St Budeaux, Plymouth, PL5 2DH

tape-to-disk, disk-to-disk, disk-to-tape, *Art Studio, Mini-Office 2,* DMP 2000 - CPC 6128
David Marek, 2 Camus Road West, Edinburgh, EH10 6RB

programming in Basic and machine-code, *Knight Tyme*
Phil Stockdale, Thorndale, 18 Shire Rd, S Ferriby, S Humberside, DN18 6JG ☎ (0652) 34363

chess programs, *Tasword 6128, Print Master, Toolkit* (Beebugsoft), *Advanced Art Studio, Mini-Office II, Advanced Music System,* disk utilities (and writing them yourself), RSXs and firmware calls
Alastair Scott, 30 Talbot St, Grangemouth, Stirlingshire, FK3 8HU

programming in Basic and machine-code - 464
Michael Ewan, Hall Bank, New Hutton, Kendal, Cumbria, LA8 0AU

Get Dexter, Robin Hood, Terra Cognita, Star Firebirds, Trailblazer, Fighting Warrior, Druid, Beachhead, Tempest, Ghosts'n'Goblins, Dynamite Dan II, Match Day, Knight Lore, Dragon's Gold, Thrust, Scooby Doo, Avenger, Bruce Lee, Match Point, Starglider, Classic Axiens, Green Beret, Frank Bruno's Boxing, Killapede, Who Dares Wins II, Sorcery, Seabase Delta, Revolution, Thing on a Spring, Starstrike II, Bounder, Splat, Xeno, World Series Baseball, Defend or Die, Manic Miner, Pingpong, Football Manager, Last V8, 180, The Apprentice, Finders Keepers, Pipeline II, Shockway Rider, Locomotion, Zub, Kane, Conquest, Knight Tyme, Radzone, Dynamite Dan, Nick Faldo's Golf, Everyone's a Wally
John Lawless jnr, 75 Leix Rd, Cabra, Dublin 7

Adventure writing -*GAC, Quill* etc. Also play-testing and evaluation, program listings etc. Anything at all to do with writing adventures!
Pat Winstanley, 13 Hollington Way, Wigan, WN3 6LS

Amaurote, Feud, Sorcery, Knight Tyme, Spellbound,- Gauntlet, Space Harrier, Ikari Warriors, Ghosts'n'Goblins, Bombjack I, Commando and all Elite games, *Batman, Frankie, Gillan's Gold,* most Ocean games, *Gunfright, Alien 8, Thrust I, Flyspy, Molecule Man, Caves of Doom, Spindizzy.* Adventures: *Hobbit, Jewels of Babylon, Worm in Paradise.* Has typed in all the type-ins
Frankie, 103 Strathaven Road, Lesmahagow, Lanarkshire, ML11 0DN

Batman, Ikari Warriors, Jack the Nipper, Rambo
Si Carter, 6 Laurel Grove, Hoole, Chester, CH2 3HU

Message from Andromeda, Terra Cognita, Thrust, Mr Freeze, Spellbound
Darren Jackson, 85 Fitzherbert St, Warrington, Cheshire, WA2 7PN

Using and programming CPM, Basic, graphics, programming adventure games, data or program security methods - 6128
Cormac McGaughey, 1 Glenariff Rd, Cushendall, Co Antrim, BT44 0QY

Basic programming (mainly utilities but some games)
Mark Bonshor, 4 Stoop Lane, Quorn, nr Loughborough, Leics, LE12 8BU

all CPC chess programs, *Tasword 6128,* DMP 2000, *Printmaster, Printer Pac II,* Beebugsoft *Toolkit,* programming with RSX commands
Alastair Scott, Mylne's Court, Lawnmarket, Edinburgh, EH1 2PF

tape-to-disk transfer, infinite lives, maps, adventure solutions, French games, Amstrad program guide
Phil Maxfield, 40 the Brow, Brecks, Rotherham, S Yorks, S65 3HP ☎ (0709) 54 5055

any aspect of writing a fanzine
Richard Hannah, 48 James St, Helensburgh, Strathclyde, G84 8XG ☎ (0436) 3310

Basic, Forth, assembler, firmware, graphics, digital electronics - 664
Tim Mo, 180 Brookland Terrace, New York, North Shields, Tyne and Wear, NE29 8EP

Basic programming, useful calls and pokes, hacking, tape-to-disk, *Melbourne Draw,* supersprites, repairing joysticks, tape loading, Basic scrolling messages, sprites in border, ripping out title pages, music and effects from games
Carl Harker, 38 Lyndon Ave, Blackfen, Sidcup, Kent, DA15 8RJ

Basic, Logo, Laser Basic, CPM, Fig-Forth, simple machine-code, *GAC,* disk or tape loading, tape-to-disk
Edward Reid, 157 Ladyloan Ave, Drumchapel, Glasgow, G15 8RX

bridge clubs - scoring on *Mitchells,* aggregate and Howells, name and address lists, library books, master points (calculation and certificates) - all CPCs using CPM for *Masterfile* and *Superscript*
FB Brighton, 30 Ranmoor View, 410 Fulwood Rd, Sheffield, S10 3GG ☎ (0742) 30 7555

Basic programming, printing problems (on DMP 2000), loads of games, pokes, maps, type-ins, machine-code
Guy Sanders, 270 Willesden Lane, London, NW2

Using and programming CPM, Basic, graphics, programming adventure games, data or program security methods - 6128
Cormac McGaughey, 1 Glenariff Rd, Cushendall, Co Antrim, BT44 0QY

Basic, sound, graphics (animation and collision detection), interrupts, tape and disk filing, printer commands, *Protext* (will print listings for 35p + 3p page + sae; screen dumps for 75p + sae; phone for details) - 464
Gavin Manning, 20 Windsor Rd, Wanstead, London, E11 3QU ☎ 01-989 8843

C&G *747,* HNC Computer Studies, serious users
John Wharram, 61 Silver Crescent, Chiswick, London, W4 5SF

machine-code, CPM, hacking - 6128
Tony Hoyle, 11 Dorset Rd, St Annes, Lancs, FY8 2ED ☎ (0253) 72 7368

Basic, machine-code, especially graphics - 464
PJ Higginson, 194 Turton Rd, Bradshaw, Bolton, Lancs, BL2 3EE ☎ (0204) 58907

Basic, some machine-code (will print listings for 50p + 5p page + sae) - 6128
Andrew Smith, 5 Station Rd, Foggathorpe, nr Selby, N Yorks, YO8 7PU ☎ (0757 85) 540

Basic, simple machine-code
Duncan Ellis, 6 Clifton Terrace, Ilkley, W Yorks, LS29 8ED

Laser games, assemblers, firmware
Martin Packer, 393 Whitton Ave East, Greenford, Midx, UB6 0JU ☎ 01-935 6600 x4283 or 01-423 3452

Spellbound, Eidolon, Dragon's Lair
Scott Miller, 7 Inverness St, Drumoyne, Glasgow, G51 4EW

CPM stat, DMP 2000, Cobol, Nevada Cobol, Turbo Pascal, Locomotive Basic, colours from Basic, disk to tape, disk to disk, *Tasprint,* databases - 464
Allen Reavie, 22 Mourneview St, Portadown, N. Ireland, BT62 3AW

machine-code programming
Jim Tripp, 24 Orchid Close, Taunton, Somerset ☎ (0823) 56492 (before 5pm)

machine-code, Basic, Logo, CPM, graphics, sound, most CPC games
PJ Cook, Prestel 011 110 750

tape loading, using CPM, Minerva database, *Tasword Taspell 6128, Art Studio, Tascopy, Multiface 2, WordStar, AMX Pagemaker, Plant, Discovery Plus*
Mr R Cope, 171 Honiton Road, Exeter, EX1 3EP

programming (Basic, some machine-code)
Jeffrey Hunt, 2 Deweys Way, Gillingham, Dorset, SP8 4BW

Batman, Druid (use map locations from *AA* maps)
Darren Roofe, Lyndhurst, Station Road, Middle Drove, Wisbech, Cambs, PE13 8JP ☎ (0945 73) 276

AMSCENE

Monthly update on what's new on the CPC scene

Multifacing the problem

A number of readers have complained about performance of the Multiface II: certain users found it didn't always work correctly and on occasions crashed the computer. The Multiface is a hardware tape-to-disk utility costing £46.95 from Romantic Robot. A phone call to its director Alexander Goldscheider brought us the following answers:

"The Multiface, being a fairly complex utility, is liable to undergo changes every now and then...". After pressing the Multiface's red button, hit *f0* on the keypad and a number will appear at the bottom right of the screen. This indicates the version you own: 78 is the latest revision. "The latest version is not a major upgrade – the success ratio has been perfected and operation speeded up." However, if you purchased the Multiface before this year get in contact with Romantic. The early software on rom had a few faults. These have been cleared up and great improvements made.

Overheating occurs on a small percentage of Amstrad 6128 machines, as Alex explained: "Since March, the Multiface is manufactured in such a way that it can be internally switched to suit CPC 6128 machines. Only a minority of 6128s – those with an imperfect ULA – show a tendency to crash. The usual effect is 'snowing' on the screen, which grows into small vertical lines."

If you know what you're doing you can open up the Multiface. You'll notice two groups of three pins. Both are situated below the red switch – one set is vertical, the other lower down is horizontal. They are covered by black caps. Remove the caps and with them link the top and centre pins and centre and left pins together.

Worried about invalidating your guarantee? Or afraid of damaging your Multiface? Send it to Romantic Robot, 15 Hayland Close, London, NW9 0LH. Romantic offers an upgrading service at £4.95 plus postage (UK £1, Europe £2, rest of the world £3). If you have other queries contact Mr Goldscheider on 01-200 8870: he'll try and sort you out.



Seas of reason

Ocean will have *Wizball* on the shelves shortly. The game, involving nine planets and a home base, puts you in contol of a wizard. Your task in this £9 cassette game, is to collect coloured creatures and mix them together at home base.



Price cut

Remember *Killer Ring*? We reviewed it back in April (issue 19). Have you seen it in the shops? Probably not: Ariolasoft got as far as mastering the game, but never got round to distributing it. Amanda Barry at Ariola says the company was in turmoil at that time due to restructuring.

Killer Ring, under the Reaktor sticker, is going to be re-released at £5 (less the obligatory penny). To keep it company, two other games will be placed in the same price bracket: *Deadringer*, a 3D racing game in space and *Mountie Mick's Death Ride*, which involves the Royal North-West frontier cop getting his man. The games are available only on cassette.



Designer characters

Goldmark Systems is releasing a font designer – another printer-oriented package to join its buffer kit for the DMP 2000 and 3000 (see *AA* 19). The new program, on tape at £8 or on disk at £12, lets you define the character set or individual characters sent to the printer.

The package makes use of an 8-bit printer port if you own one, but works equally well without. Once characters have been defined you can load or save them when required. You can even make use of the defined characters from within *Protext* or *Tasword*.

Your printer must be capable of downloading characters and otherwise understand Epson codes. Amstrad's DMP 2000 or 3000 and Epson's LX-86 are three of the many printers that fit the bill. If you are in any doubt contact Brian Barton at Goldmark on (07072) 71529. The DMP printer buffer and character downloader software can be bought together for £12.50 on cassette, £16.50 disk.

Gold noises

You've seen it on TV; soon you'll have the chance of playing it on the computer. The famous Road Runner cartoon will soon appear on your CPC. Programming is under way and from the excitement shown by Richard Tidsall of US Gold, the game promises much.

Road Runner follows the drift of the cartoon: Runner must outwit Wile E Coyote. Scenes include chases and dodging coyote traps. What promises to produce a smile will cost £10 on tape and £15 on disk. Beep-beep.

Other future Gold releases include *Killed Until Dead*, *Survivor* and *Temple of Doom*.

Killed Until Dead is a graphical adventure-type game. You, in the guise of Hercule Holmes, must solve the murders that took place at the Gargoyle Hotel.

As for the other two games, we're in the dark. Presumably *Temple of Doom* will closely follow the film.

They've done it again

CRL has managed to get an "over-15" certificate stuck to its version of *Frankenstein* – like its *Dracula* some months ago. Perhaps it was the pricetag that shocked the board of censors: £10 on cassette and £15 on disk.

No plans have been made to pass *Ninja Hamster* under the censors' eyes. However, this may change as the game is supposed to feature violent martial-arts sequences, evil rats and lizards. You can expect to pay £8 on cassette and £15 on disk.



Lots of labels

Ariolasoft, which seems to introduce software labels at the same rate as products, is launching another label – Viz Design. Paul Smith, programmer of *Bride of Frankenstein*, will head a team of programmers for 8-bit machines. Their first job is *Werewolves of London*. Amstrad, Spectrum and Commodore version are to appear later in the year.

Matt of the mask

Gremlin's latest is *MASK*. The game will feature cartoon hero Matt Trakker and cost you £10 on cassette, £15 on disk.

The storyline tells of a vicious battle between MASK agents and the VENOM network. The planet lies scarred and lifeless. Many MASK agents were captured by VENOM and scattered among Earth's ruins. Naturally Matt is man of the moment and must retrieve all the good guys.

MASK is due for release in early August.

See you there

What looks to be the largest-ever Amstrad computer show, with "official" scribbled all over it, is just weeks away. All exhibitor stands have been booked. And reports say the Alexandra Palace in North London will be packed with companies new to the Amstrad scene. Novotel at Hammersmith, the past venue, has been outgrown.

And £3 is the fee – £2 if you're quick and order advance tickets on 061-480 0171. Friday 10 to Sunday 12 July are the days. Times are 10am to 6pm – except Sunday, when stalls will be evacuated at 4pm. See you there.

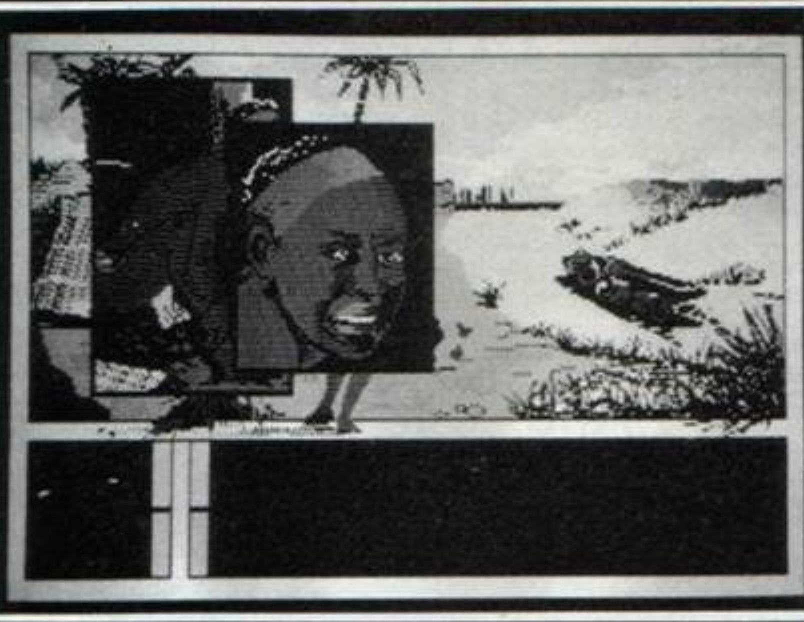


Three ships went sailing by

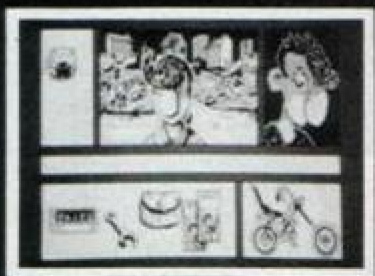
Remember last issue we raved about a French product from Infogrames, *Passengers on the Wind*. We liked it so much it won the Master Game sticker. Back in France, its programmers are working hard on a sequel: – *Les Passagers du Vent 2*.

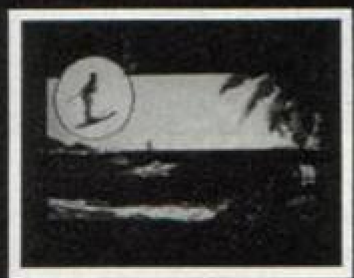
Judging from a preview, graphics are better than ever, sound remains at the high standard and there is much more interaction. There is less text (the little there was baffled us as it was in idiomatic French) but more fire-button clicking to contend with.

No release date (or price) as yet, but watch out for this exciting product.



Infogrames promises two other releases. We have screenshots, but no other information. One is a water-skiing game; the other we're not sure about. Apparently characters leap out at you from the screen – at least that's what the visiting Infogrames team told us.





Tune into teletext

Microtext made it possible to receive teletext – BBCtv's Ceefax and and ITV's Oracle, for example – on the Amstrad CPC computer. The original setup was not entirely satisfactory, needing both a video recorder and an adaptor.

A new version of Microtext's teletext adaptor is ready. You no longer need a video: a tuner is bundled with the adaptor. Just plug it into the CPC's expansion port. According to Microtext, there is no need for fine tuning: the tuner does it automatically. The system also allows pages to be saved or printed.

The price is £114.80. Owners of the older adaptor can upgrade for £48.85 direct form Microtext, 7 Birdlip Close, Horndean, Hants; phone (0705) 59 5694.





Questionnaire results

We've compiled the results of the questionnaire in our June issue and here are the highlights. 61% of you own 464s, 17% with a disk drive. 36% have 6128s and 6% have 664s. The reason that the figures add up to 103% is that some of you have more than one machine.

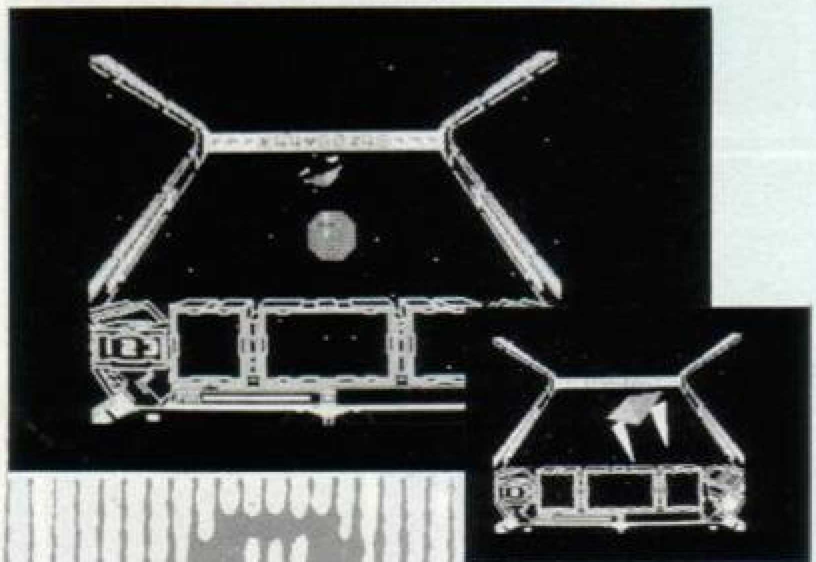
The wide age spread of our readership was also revealed: 36% are 12–16, 19% are 17–25 and 26% are 26–40. 16% are over 40, so you can see we've got a lot of different ages to keep happy.

You're planning to spend a quite a lot of money in the next 12 months. Most popular items are printers and disk drives. The importance of printers was also emphasized: 50% of you already have them.

The three most popular uses of the CPCs are games, word-processing and Basic programming – no surprises there. This was also reflected in what you like about *AA*. The four favourite reasons for buying the mag were Action Test, Type-Ins, Cheat Mode and Serious Software.

There were lots of helpful suggestions about how we could improve the mag, some feasible, some not. We'll be trying to implement the better ones. Many thanks to all those that responded to the survey. It's been invaluable to us.

And so it will be



The future will see a devastating battle between the eight planets of the Hyturian System. At least that's what Anolasoft leads us to believe. Its new game, *Starfox*, appears to be a 3D shoot-em-up with attacking craft made up of solid or shaded graphics – very similar to *Starstrike II*.

Realtime is responsible for programming *Starfox*, which explains the similarity to *Starstrike* – they did both. £9 and £15 are the expected cassette and disk prices. You should be able to pick up a copy in the shops now.

Leaderboard remould

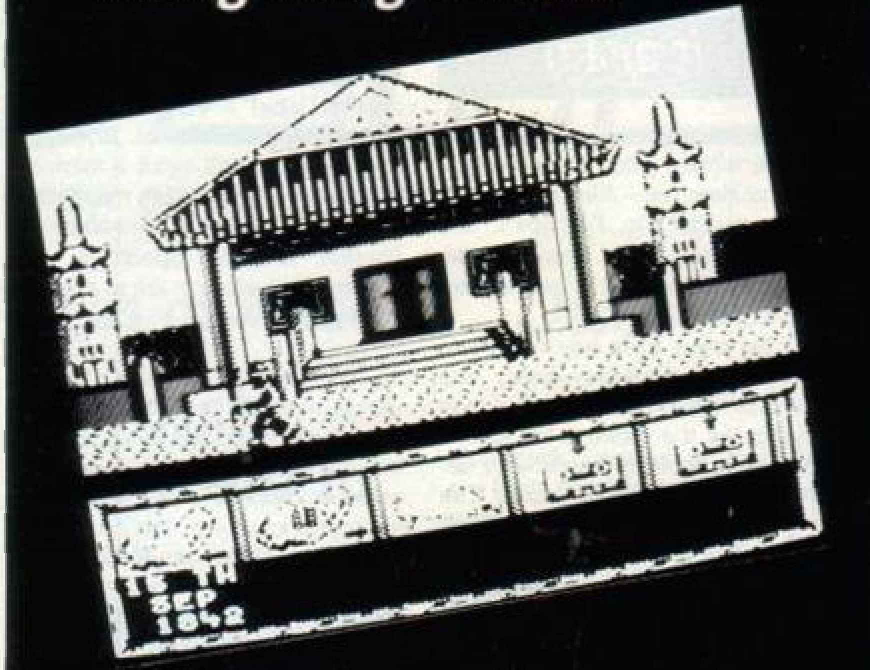
The latest version of the raved golf game from US Gold is called *Leaderboard Tournament*. It has four new courses and other small improvements.

The new courses are in the same mould as those in the previous version: no bunkers, no trees, a fairway of ground, a rough of water. Still, some of the shapes are difficult to play. But Chris Boothman reports that the constant blue and green hurts his eyes.

It is still just as slow to draw the screen, but they incorporated the age-old method of drawing the background screen and then flipping it to the front. Putting is a bit slower, but not overly so. It may appeal to anyone new to *Leaderboard* but doesn't offer much else.

Much more exciting is the prospect of *World Class Leaderboard*. We've seen an early demo of this and – hold on to your hats – it's got trees, bunkers, different shades of grass colour and overhead views of the hole. We don't know when a review copy will be available, but when it is this could be the ultimate sports simulation for the Amstrad. "Can't wait," says CB.

Hong Kong or bust



First you had computerised *Shogun*: soon you'll have *Tai-pan* on your screen. Both are taken from the films and books of James Clavell. Virgin was responsible for the programming of *Shogun*; Ocean has the reins this time and promises a graphically stunning and action-packed game.

The story is set in the 19th century along the seafront of Hong Kong. Pirates, press-gangs, mutinies and smuggling were commonplace then. They feature heavily in the game. The idea is to make your fortune by shipping cargo to and from Hong Kong port.

Release is imminent.

Double stakes

We had a sneak preview of *The Living Daylights* – the computer game – when half the Domark directorship popped in to *AA* Bath. And very interesting it looked too. Release date is late June.



Guess which of the three is not playing at James Bond

A decade of shows

The tenth Personal Computer World Show takes place from 23 to 27 September. It promises to be the largest computer show of them all, with another record-breaking attendance. Many top software houses, including Ocean and Mirrorsoft, are to exhibit. And of course Amstrad will be there in full force.

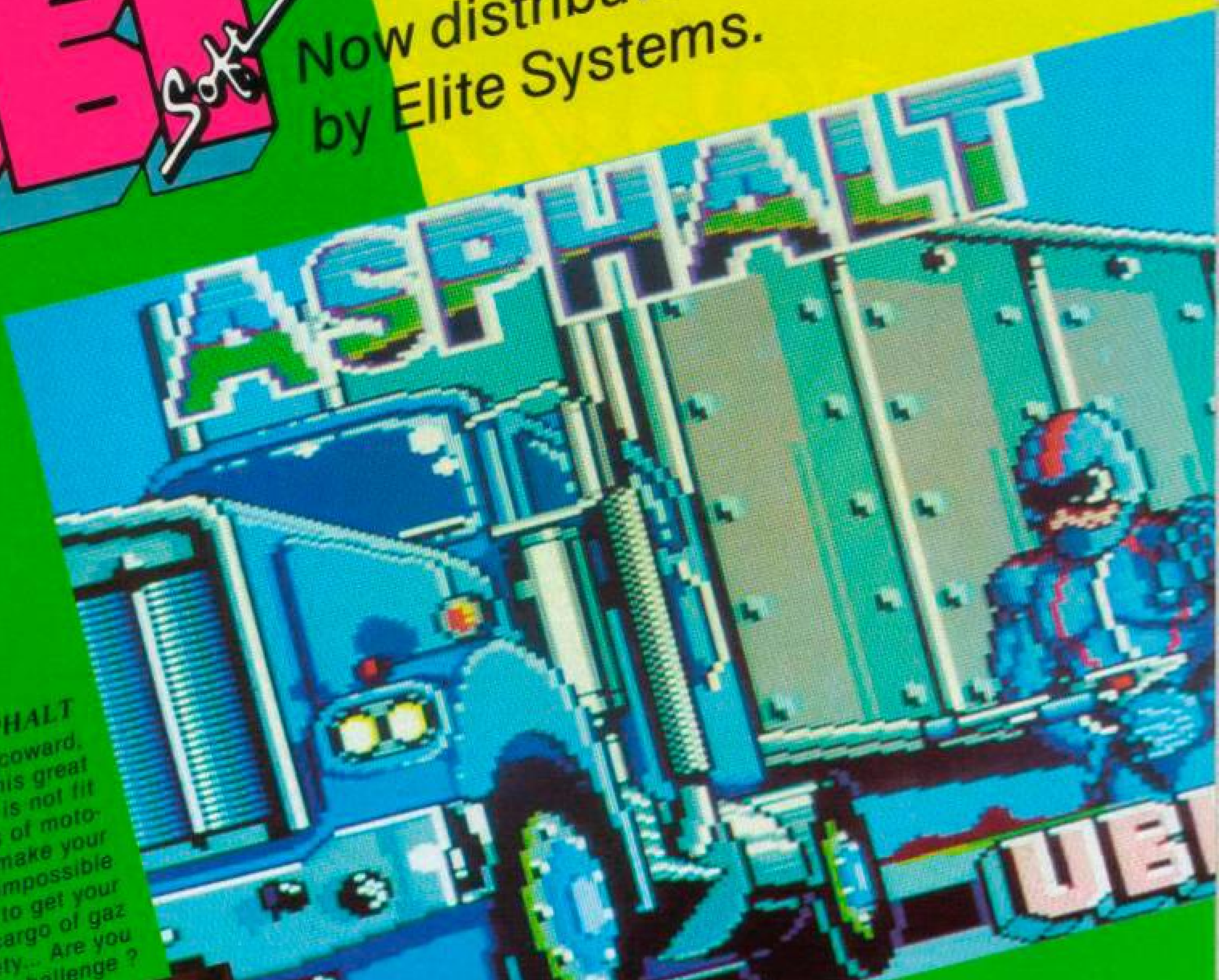
Tickets at £3 can be obtained from Keith Prowse ticket agencies, 01-741 9999. For groups of more than 10, admissions come down to £2.50.

Ronnie on Arnie

Martech has hired a cardboard cut-out of Ronald Reagan to help with technical problems on its latest: *The Armageddon Man*. Late July will see its release on the Amstrad. You guide Mr Armageddon, who has the important task of controlling a network of spy- and laser-defence satellites. It's to cost £13 on cassette and £15 on disk. Before you gasp, the price includes a colour vinyl map of the world and little flags to stick into the parts you don't like (and 5p change).

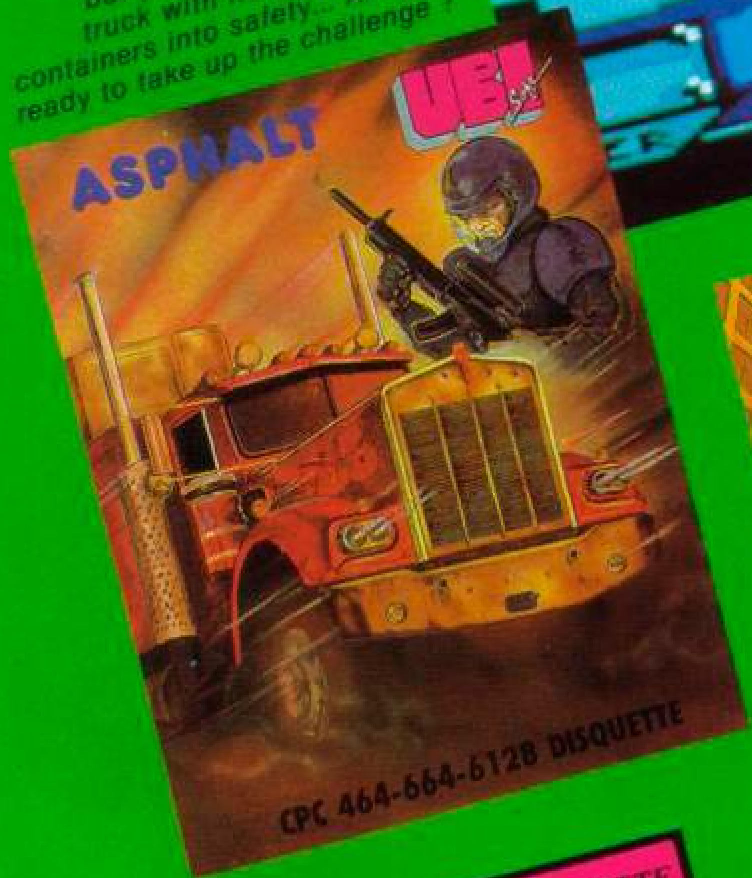
UBI Soft

Now distributed in the U.K.
by Elite Systems.



ASPHALT

If you are a coward, hands off ! This great arcade game is not fit for you ! Gangs of motorised hooligans make your mission almost impossible but you HAVE to get your truck with its cargo of gaz containers into safety... Are you ready to take up the challenge ?







MANHATTAN 95

We need no glamorous heros, we need no flying witches ! Our hero is called SNAIL : he is an evil character, arrested and confined in NEW YORK prison. He's got only two options : If he succeeds in liberating the president of the US, he will be free, if he fails, he'll be dead and all this by using his brains as much as his INGRAM !

AMSTRAD CASSETTE
£ 9.95
AMSTRAD DISC
£ 14.95

UBI Soft

1, voie Félix Eboué - 94021 CRÉTEIL Cedex - FRANCE
Tél. 010 331 43 39 23 21
Available from : ELITE SYSTEMS
Anchor House, Anchor Road
Aldridge, Walsall WS 98 PW
Tél. (0922) 59165


The Ultimate Golf Challenge
World Class
LEADER BOARD™
Full scoreboard printout.
Course Editor allows you to arrange any of the holes from all four courses to form your own personal 18 hole golf course. (Disk)
More trees (upto 192 per hole), traps and rough.
Practice putting green and driving range.
Improved graphics and playability increase difficulty and add realism.
Aerial view gives you a bird's eye view of the course and your position.
One to four players can compete in MEDAL, MATCHPLAY and BETTER BALL competitions.
Realistic choice of club, distance, type of shot (hook, slice or putting).
Unlimited backups of World Class Leaderboard can be made for your archives. (Disk)
U.S. Gold proudly present the final challenge in the Leaderboard series – World Class Leaderboard – the Ultimate test of your skill and judgement, the unparalleled successor to Leaderboard and Leaderboard Executive. Now you have the opportunity to play the same courses that have challenged golf's greatest legends, three famous and classic 18 hole golf courses in which each hole is authentically reproduced for distance, traps, trees and water hazards.
St Andrews
Doral Country Club
Cypress Creek
And the fourth, the "Gauntlet Country Club" has been specifically designed for the "World Class Leaderboard" challenge – only those who can master the testing conditions of the best golf courses in the world will come near to mastering "The Gauntlet".
Whether at novice, amateur or professional levels, "World Class Leaderboard" will challenge you with the same demanding strategy, skill and decision making options set by its real life counterpart.
The Gauntlet – designed to create the greatest test of a golfer's true skills and abilities. Few courses combine such a searching trial of accuracy and courage, harrowing and perilous in the extreme.
EUROPEAN COMPUTER GOLF CHAMPION 1987
In honour of the outstanding excellence of this, the ultimate golf game, U.S. Gold have organised a competition to find the European Computer Golf Champion of 1987. In every World Class Leaderboard game there is a scoreboard. Practice your skills, test your courage and then play your best possible round on the Ultimate course – The Gauntlet – Record your best score, have it verified by an independent witness and send it to U.S. Gold. Novice, Amateur and Professional – there's a prize for each:–
Professional: a full set of Ping golf clubs – "the ultimate club in the world."
Amateur: a full set of Gallagher golf clubs – a superb asset in improving your game.
Novice: 10 free golf lessons with the "teaching professional" of your local golf club.
When all entries have been received – closing date 31st September 1987 – the top four players at each level will be called to a central venue to play-off for the title European Computer Golf Champion 1987 and receive their trophies and prizes.
screen shots from CBM 64/128 version
CBM 64/128 £9.99 TAPE £14.99 DISK
AMSTRAD £9.99 TAPE £14.99 DISK
SPECTRUM 48/128K £8.99 TAPE
SPECTRUM +3 £12.99 DISK
ACCESS™
U.S. GOLD
U.S. Gold Ltd., Units 2/3 Holford Way, Holford, Birmingham B6 7AX. Tel: 021 356 3388.

TYPE-INS

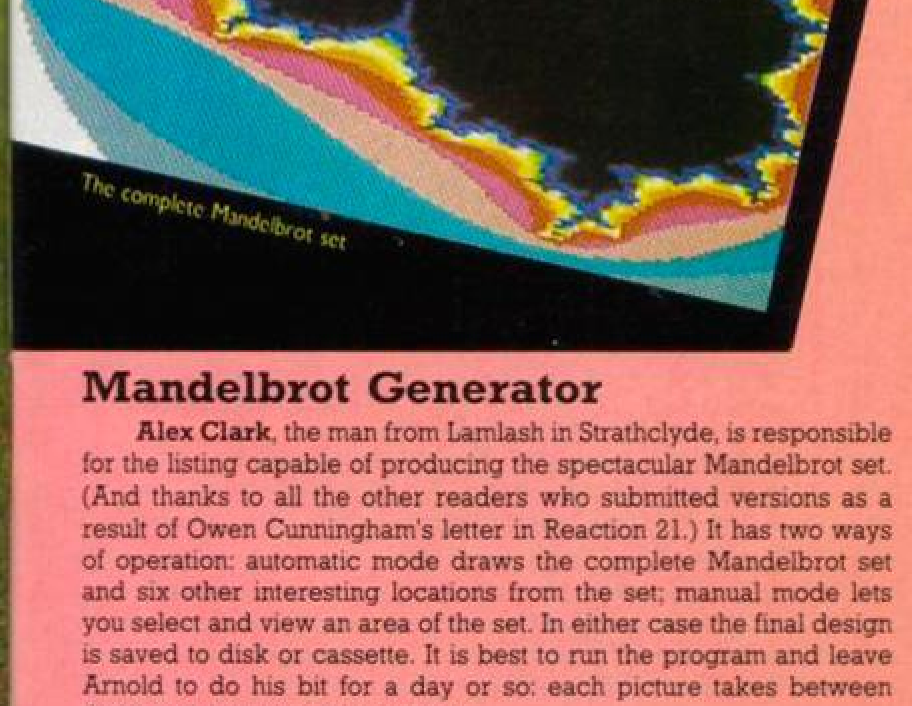
All set for Mandelbrot: a type-in on a fascinating frontier of maths, guided by RpM

In the age of the supercomputer whole new areas of problem-solving have been invented because they're possible. Complex equations involving hundreds of thousands of calculations have become manageable. What would have taken hundreds of man-years to complete can take seconds on a powerful computer. Several mathematicians' theories have been explored in depth as a result of the computer. The Mandelbrot set – which stems from fractals – is both obscure and spectacular. Much has been made of Benoit Mandelbrot and the set he discovered in 1974. Why? Look at the colourful eye-catching designs of ever-increasing complexity. No use whatsoever – but breathtaking.

The Mandelbrot set is pictured as an area in two dimensions. It's a collection of points defined by a simple repeated function. You can see the complete Mandelbrot set in the picture – the black region. The coloured bands represent the behaviour of points as they get close to the set.

It's the complexity of the shape that makes the Mandelbrot set so fascinating: the more you enlarge and examine minute areas of the set, the more complex it gets. Although the area is finite – lies within the circle defined by $x^2 + y^2 = 4$ (which I'm not going to prove, you can get further details from Mandelbrot's book *The Fractal Geometry of Nature*) – the edge is infinitely complex and of infinite length. Mathematicians have a word for this: fractal. A few recent games use fractal graphics to build, say, a real-looking mountain from only an equation. *Eidolon* and *Koronis Rift* are two.

Enough of the background information. Let's get down to the nitty-gritty of things. Here is a type-in that will produce the entire Mandelbrot set and the other areas seen on this page.



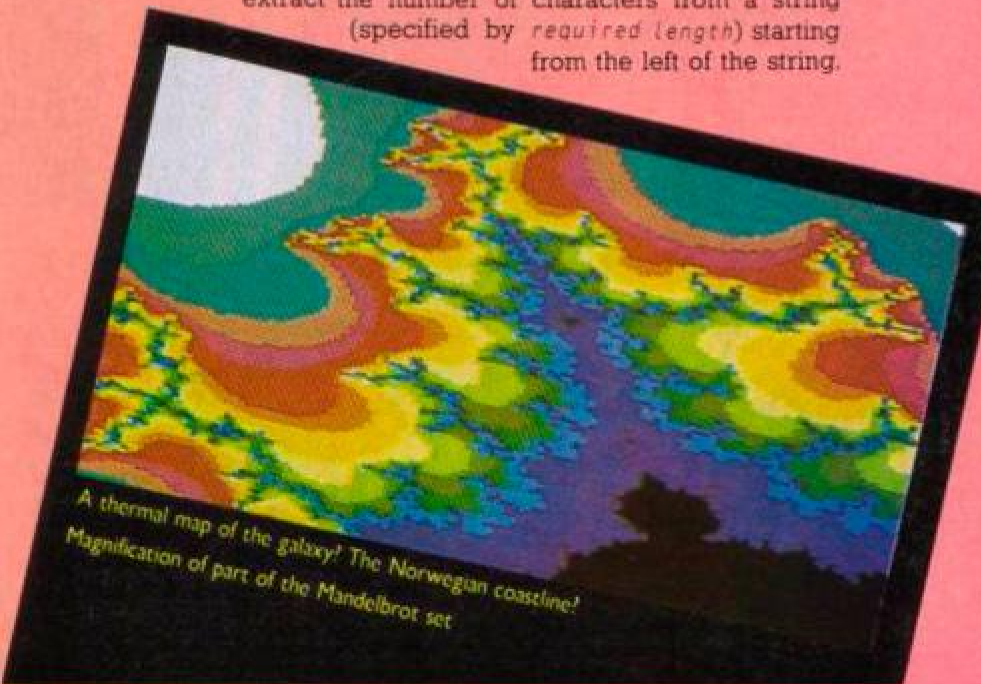
The complete Mandelbrot set

Mandelbrot Generator

Alex Clark, the man from Lamlash in Strathclyde, is responsible for the listing capable of producing the spectacular Mandelbrot set. (And thanks to all the other readers who submitted versions as a result of Owen Cunningham's letter in Reaction 21.) It has two ways of operation: automatic mode draws the complete Mandelbrot set and six other interesting locations from the set; manual mode lets you select and view an area of the set. In either case the final design is saved to disk or cassette. It is best to run the program and leave Arnold to do his bit for a day or so: each picture takes between three and eight hours to produce.

```
1 ' Mandelbrot generator
2 ' by Alex Clark
3 ' Amstrad Action      August 87
10 MODE 1: MEMORY &4FFF: DIM c%(255)
20 INPUT"Automatic or manual operation? (a/m): ";am$
30 IF LEFT$(LOWER$(am$),1)="a" THEN GOSUB 120 ELSE
   GOSUB 50
40 END
```

Alex has been rather clever in the way he has used `LEFT$` and `LOWER$` in this line. `LEFT$ (string expression, required length)` is the standard format for the command. Its function is to extract the number of characters from a string (specified by *required length*) starting from the left of the string.



A thermal map of the galaxy? The Norwegian coastline? Magnification of part of the Mandelbrot set

`LOWER$` forces a string to lower-case – `UPPER$` does the opposite. It is now easy to see what line 30 does to your input – which is held in `am$`: the command `LEFT$ (LOWER$ (am$), 1) = a` will force `am$` to lowercase and interest itself in the leftmost character only. If the expression falls true, that is, finds that your input consists of an `a`, you'll be whisked off to line 120; otherwise you're banished to line 50.

Dicing with data

Notice line 100, which reads `a$="!"+a$`. The filename is held in `a$`. The exclamation mark prefixed to `a$` prevents the SAVE message appearing on screen (which would ruin five hours' computer time).

```
50 ' *** "j" "k" and "q" manual input
60 INPUT "Enter j... [real axis start]: ";j
70 INPUT "Enter k... [imaginary axis start]: ";k
80 INPUT "Enter q... [axes' length]: ";q
90 INPUT "Enter filename to save picture under: ";a$
100 a$="!"+a$
110 GOSUB 280: GOSUB 540: MODE 1: RETURN
```

Once the program has accepted your input it will `GOSUB 280` which does the calculating, `GOSUB 540` (draws up the picture and saves it) and finally `RETURN`s whence it came.

```
120 ' *** Load in your own data for "j" "k" and "q"
130 ' or run this routine to give five good examples
140 ' from the Mandelbrot set ***
150 FOR a=1 TO 6: READ xa(a),ya(a),sa(a): NEXT
160 ' *** Coordinatess for entire set ***
170 DATA -2.5,-1.25,2.5
180 ' *** Interesting locations from set ***
190 DATA -0.9, 0.15, 0.2
200 DATA 0.353, 0.647, 0.005
210 DATA 0.34, 0.63, 0.04
```

Would look nice on a t-shirt

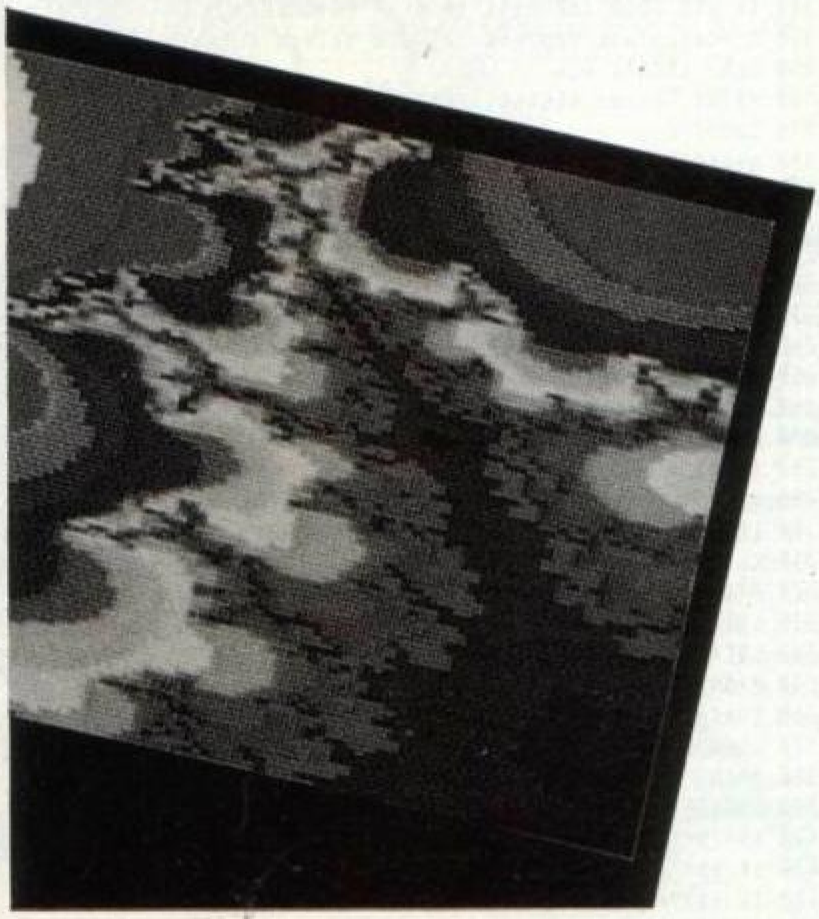

THE FOX IS BACK!
S·T·A·R·F·O·X
AVAILABLE ON
SPECTRUM £8.99 COMMODORE CASS. £8.99
AMSTRAD CASS. £9.99 AMSTRAD DISK £14.99
COMMODORE DISK £12.99
REAKTÖR

```
220 DATA -0.737, 0.25, 0.025
230 DATA -0.725, 0.257, 0.006
240 FOR pics=1 TO 6
250 a$="!mandpic"+MID$(STR$(pics),2,1)
260 j=xa(pics): k=ya(pics): q=sa(pics)
270 GOSUB 280: GOSUB 540: MODE 1: NEXT: RETURN
```

If you picked automatic then you'll have landed here. Line 150 reads in the data starting at 170 which holds the coordinates for the entire Mandelbrot set and five other locations in and around the set. If you wish you can replace the existing data with some of your own.

The data is placed into arrays. Array `xa` will hold the six different `j` values, `ya` the six `k` values and so on.

Line 150 contains an interesting example of string-handling: `a$` holds `!mandpic`. However, there is a plus sign following the closing quotemark, indicating more to `a$` than is immediately obvious. The plus is followed by `MID$` and a smattering of assorted characters. The function `MID$` has the format `MID$(string variable, position, new string length)`. It behaves in a similar way to `LEFT$`. The string variable in this case is `STR$(pics)`. The variable `pics` ranges from one to six (defined in the for-next loop, line 240). `STR$` will convert a numeric expression into string form. So the net result is that `a$` will contain `!mandpic1`, with the final digit increasing each time until 6.



Assigning variables

The next section of the program is responsible for working out and storing the different points of the Mandelbrot set. You should have no trouble following this part. What you may not have come across is the form *variable%*. The percent-sign tagged onto a Basic variable's name indicates a special type – an integer variable. An integer is a whole number; it does not allow a fractional part. There is a good reason for using this form of variable: it takes up less space in memory and consequently increases execution speed.

```
280 ' *** Mandelbrot set generator ***
290 BORDER 0: INK 0,0: INK 1,13: PAPER 0: PEN 1: MODE 1
300 PRINT "RUNNING"
310 tot=0
320 s%=255
330 h=q/128
340 add=&5000
350 FOR j%=0 TO 127
360 t=TIME
370 FOR k%=0 TO 127
380 u=j+h*j%
390 v=k+h*k%
400 n%=-1:x=0:y=0
410 y2=y*y
420 x2=x*x
430 y=2*x*y+v
440 x=x2-y2+u
450 n%=n%+1
460 IF n%=s% OR x2+y2>=4 THEN 470 ELSE 410
470 POKE add,n%: add=add+1: NEXT
480 PRINT j%+1;"completed out of 128 runs taking"
490 se=INT((TIME-t)/300): mi=INT(se/60): sec=se-(mi*60)
500 PRINT mi;"mins  ";sec;"secs"
510 tot=tot+mi+(sec/60): NEXT
520 PRINT "end after about";INT(tot);"minutes"
530 RETURN
```

The listing works out the points for the Mandelbrot set within an area 128 by 128. Each point is worked out individually – this amounts to an incredible 16,384 points to calculate. Given that each calculation with all its stages takes approximately one second, it's easy to understand why Arnold needs five hours to draw a single picture.

Drawing the set

The data for the Mandelbrot set is stored from memory location &5000 (in decimal, 20480). If a point is within the set it will have a value 255. The nearer the point is to the set, the higher its value. Points of the same value will have identical colours assigned to them, rather like contours on a map. In theory there could be 256 colours in the final display, but in practice too many colours would produce a confusing display. Not only that, the Amstrad can display a maximum of only 16 colours. So we compromise: ranges of numbers will have certain colours assigned to them.

```
540 ' *** Mandelbrot drawer ***
550 ' *** Initialise ***
560 maxcol%=15
570 FOR n%=0 TO 255
580 c%(n%)=0
590 NEXT
600 ' *** Find max and min values ***
610 add=&5000
620 FOR n%=1 TO 128*128
630 b%=PEEK(add): add=add+1
640 c%(b%)=c%(b%)+1
650 NEXT
660 ' *** Assign colours to values ***
670 ma=(128*128-c%(255))/maxcol%
680 c%(255)=0
690 j%=maxcol%
700 t%=0
710 FOR n%=0 TO 254
720 t%=t%+c%(n%)
730 c%(n%)=j%
740 IF t%>=ma*(maxcol%-j%+1) THEN j%=j%-1:
    IF j%<1 THEN j%=1
750 NEXT
760 ' *** Draw Set ***
770 MODE 0: ORIGIN 64,72
780 RESTORE 790:FOR a%=0 TO 15:READ col%:INK a%,col%:NEXT
790 DATA 0,4,1,2,9,12,18,25,24,15,6,7,16,10,13,26
800 h%=8
810 add=&5000
820 FOR j%=0 TO 127
830 FOR k%=0 TO 127
840 a%=PEEK(add): add=add+1
850 b%=c%(a%)
860 PLOT j%*4,k%*2,b%
870 NEXT
880 NEXT
890 ' *** Save Screen ***
900 SAVE a$ + ".pic", b, &C000, &4000
910 RETURN
920 END
```

Now, while waiting for your screen to fill, has anyone written a short, fast machine-code version? Please send it in.

Rally's wrong

Issue 21 had a type-in called *Rally*. Unfortunately errors appeared in the final listing. Luckily F Akinlawon (the author) spotted the mistakes. Line 100 contains a bug which makes **the game unplayable. Alter it to read** `100 a$="↑↑"`. **The** up-arrow character is produced by pressing Control and K simultaneously, and not by key marked up-arrow. Another bugette – which won't seriously affect the gameplay – appears in line 480: the last Goto in the line should read `GOTO 50`.

Number game

The computer will ask you to think of a number between 1 and 20 – mind you don't spill the beans to Arnold. Once you have a number, the computer will instruct you to perform several operations on it: addition and subtraction in particular. Finally the computer will disclose the number in your mind. Magic? No. See if you can work out how it does it. And the man to blame: **Daniel Berman** of Liverpool.

```
1 ' Number game
2 ' by Daniel Berman
3 ' Amstrad Action    August 87
40 ' Initialize
50 MODE 1: CLS: BORDER 0
60 INK 0,0: INK 1,24: INK 2,14: INK 3,26
70 KEY 150,"Y"+CHR$(13)
80 KEY DEF 43,1,150
90 KEY 151,"N"+CHR$(13)
100 KEY DEF 46,1,151
110 '
120 PEN 1: LOCATE 13,2: PRINT"NUMBER GAME"
130 PEN 2: LOCATE 13,3: PRINT"-----------"
140 PEN 3: LOCATE 4,5:PRINT"THINK OF A NUMBER
    FROM 1 TO 20"
150 FOR delay=1 TO 1000: NEXT delay
160 GOSUB 450
170 LOCATE 8,3: PEN 3
180 PRINT"NOW DOUBLE YOUR NUMBER!"
190 GOSUB 450
200 RANDOMIZE TIME
210 LET rndnum=INT(RND*20+1)
220 LOCATE 12,3: PEN 3
230 PRINT"O.K. NOW ADD"
240 LOCATE 24,3: PEN 2: PRINT rndnum
250 GOSUB 450
260 LOCATE 7,3: PEN 3
270 PRINT"FINE! NOW HALVE YOUR NUMBER"
280 GOSUB 450
290 LOCATE 2,3: PEN 3
300 PRINT"TAKE AWAY THE NUMBER YOU THOUGHT OF: "
310 GOSUB 450
320 LOCATE 8,3: PEN 3
330 PRINT"YOU ARE LEFT WITH"
340 LOCATE 25,3: PEN 2: PRINT rndnum/2
350 loop=0: WHILE loop=0
360 LOCATE 8,23: PEN 1
370 PRINT"PRESS Y/N"
380 LOCATE 8,25
390 INPUT"DO YOU WANT ANOTHER GO: ",a$
400 IF a$="Y" THEN loop=1 ELSE IF a$="N" THEN loop=2 ELSE
    loop=0: WEND
410 IF loop=1 THEN RUN ELSE CALL &BB00: MODE 2: CLS: END
420 '
430 ' Get Keypress
440 '
450 LOCATE 7,25: PEN 2
460 PRINT"
470 WHILE INKEY$="": WEND
480 CLS
490 RETURN
```

Degrees conversion

AE Turner of Hazlemere, Bucks, has sent in a program that converts between Fahrenheit and Centigrade temperatures. This useful routine can quite easily be incorporated into your own programs.

```
1 ' Degrees conversion
2 ' by A E Turner
3 ' Amstrad Action    August 87
20 '
30 ' *Scale Selection*
40 CLS: INK 0,13: INK 1,0: PAPER 0: BORDER 13
50 LOCATE 7,2
60 PRINT "*THERMAL DEGREES CONVERSION*"
70 LOCATE 7,6
80 PRINT "CENTIGRADE TO FAHRENHEIT...1"
90 LOCATE 7,9
100 PRINT "FAHRENHEIT TO CENTIGRADE...2"
110 LOCATE 10,14
120 PRINT " SELECT CONVERSION";: INPUT d
130 IF d=2 GOTO 260 ELSE IF d<>1 GOTO 40
140 ' *Calculate Degrees 'F' and Select Colours*
150 CLS: LOCATE 6,4
160 PRINT "Enter DEGREES CENTIGRADE ";
170 INPUT c
180 a=c*9/5+32
190 IF c>=100 THEN INK 1,6,15 ELSE IF c<=0 THEN INK 1,11,1
200 CLS: LOCATE 9,6: PRINT c;
210 PRINT " DEGREES CENTIGRADE "
220 LOCATE 20,10: PRINT "="
230 LOCATE 9,14: PRINT ROUND(a,2);
240 PRINT"DEGREES FAHRENHEIT": GOTO 370
250 ' *Calculate Degrees 'C' and Select Colours*
260 CLS: LOCATE 6,4
270 PRINT "Enter DEGREES FAHRENHEIT ";
280 INPUT f
290 b=((f+40)*5/9)-40
300 IF f>=212 THEN INK 1,6,15 ELSE IF f<=32 THEN INK 1,11,1
310 CLS: LOCATE 9,6
320 PRINT f " DEGREES FAHRENHEIT"
330 LOCATE 20,10: PRINT "="
340 LOCATE 9,14: PRINT ROUND(b,2);
350 PRINT" DEGREES CENTIGRADE": GOTO 370
360 ' *Choice of Another Entry*
370 LOCATE 2,18
380 PRINT"  Do you wish to make another ENTRY? "
390 LOCATE 19,21: PRINT "y/n?"
400 e$=INKEY$: IF e$="" THEN 400
410 IF e$="y" OR e$="Y" THEN 40
420 IF e$="n" OR e$="N" THEN CLS: INK 1,0: END
430 IF e$<>"n" OR e$<>"N" THEN GOTO 400
```

Character-by-character print

Here's a handy routine from **B Naff** *[If you're going to put silly names on your communications, just remember that that's what will go on the cheque. Have you tried convincing your bank that your name is Bug Navigator? – Ed]* of Horsham, West Sussex. It lets you print characters to the screen at the speed you choose and makes a noise when a character appears – giving a typewriter effect.

It should be very simple to tailor the routine and incorporate it within your own programs: line 80 holds the delay between characters being printed – alter it to suit. Text that you wish to

appear must be held in Data statements from lines 140 onwards. The final Data line must contain a single up-arrow (found on the same key as the pound sign).

```
1 ' Character printing
2 ' by B Naff
3 ' Amstrad Action    August 87
10 ' *Setup*
20 MODE 1: CLS: RESTORE: ENV 1,15,1,7
30 ' *Read string and Start*
40 READ a$
50 FOR t=1 TO LEN(a$)
60 PRINT MID$(a$,t,1);
70 ' *Set delay and the sound-effect*
80 FOR delay=0 TO 50
90 NEXT delay
100 IF MID$(a$,t,1)<>" " THEN SOUND 1,50,2,10,1,1,1
110 NEXT t
120 READ a$: WHILE a$<>"↑": GOTO 50: WEND
130 ' *The text to be sent to the screen*
140 DATA ----------------------------------------You have
    now got character-by-character slow printing.
    Alter the value held in line 80 to determine the
    rate at which characters are printed. Place the text
    you wish to appear in DATA starting
150 DATA from line 140. You must place an up-arrow
    (↑) -- it shares a key with the pound sign -- in the
    last DATA line. --------------------------------
    --------
160 DATA ↑
```

Reaction tester

Ever wanted to know how fast you are at slinging a gun? Here's your chance. **Kevin Stafferton** of Spinney Hill, Northampton, has written a program that tests your reaction speed.

The program will display one of the four directional arrows. You must move the joystick or press the cursor key corresponding to this arrow. The computer times you and prints your speed with sarcastic remarks.

As the program stands it uses the cursor keys. To use a joystick, remove line 40 and de-REM (take out the command word "REM" – or the starting apostrophe (') which means the same thing – from) line 45. The key numbers are held in line 40. If you wish to use other key combinations look at the back of the user guide or on the 6128's case; it contains all the key numbers. Line 40 contains c(1)=0. This means the key to move left is key number 0, which happens to be the left-arrow character. If you wish this to be Z then replace it with c(1)=71. The same applies for the other keys.

By the way, a hot tip: note the way Kevin forces a new line in a Print statement – like line 130 – by typing two quotemarks in a row.

```
1 ' Keyboard reaction tester
2 ' by Kevin Stafferton
3 ' Amstrad Action    August 1987
10 ' Set up
20 ON BREAK GOSUB 370
30 MODE 0: BORDER 0: INK 0,0: INK 1,24: INK 2,20:
   INK 3,6: INK 4,26
40 DIM c(4): c(1)=0: c(2)=2: c(3)=8: c(4)=1
45 ' DIM c(4): c(1)=72: c(2)=73: c(3)=74: c(4)=75
50 LOCATE 6,2: PEN 1: PRINT "KEYBOARD"
60 LOCATE 6,4: PEN 2: PRINT "REACTION"
70 LOCATE 6,6: PEN 3: PRINT " TESTER"
80 FOR n=1 TO 2000: NEXT n
90 CLS: LOCATE 2,2: PEN 1: PRINT "Watch this space"
100 WINDOW #1,9,11,5,7: PAPER #1,4: PEN #1,0: CLS #1
110 WINDOW 1,20,10,25
120 ' Instructions
130 PEN 2: PRINT "  An arrow will""appear in the space""
    above. You have to""push the appropiate""direction key
    as""quickly as you can."
140 PEN 3: PRINT: PRINT TAB(4);"Press any key"
150 PRINT TAB(7);"to start"
160 CALL &BB03: i$="": WHILE i$="": i$=INKEY$: WEND
170 ' Main program
180 CLS: PEN 1: PRINT TAB(6);"GET READY!"
190 d=0: FOR n=1 TO RND*500+500
200 IF INKEY$<>"" AND d=0 THEN PEN 2: PRINT "Wow. You must
    have""read my mind! Pity""I'm not allowing""that.": d=1
210 NEXT n: IF d=1 THEN 330
220 a=INT(RND*4)+1
230 LOCATE #1,2,2: PRINT #1,CHR$(239+a);
240 t=TIME
250 WHILE INKEY(c(a))<0 AND TIME-t<3000: WEND
260 t=(TIME-t)/300
270 PEN 2: PRINT
280 IF t>=10 THEN PRINT "Who forgot to press""the right
    key?": GOTO 330
290 PRINT "Time taken is ";USING "#.##s";t
300 IF t<0.25 THEN PRINT "What reflexes!"
310 IF t>=0.25 AND t<0.4 THEN PRINT "Passable."
320 IF t>=0.4 THEN PRINT "You'd be dead now!"
330 PEN 3: PRINT: PRINT TAB(4);"Press any key"
340 PRINT TAB(5);"to try again"
350 CALL &BB03: WHILE INKEY$="": WEND
360 CLS #1: GOTO 180
370 MODE 1: PEN 1
```

Catalogue to variables

This program by **Martin Packer** of Greenford, Middlesex, will place the contents of a disk catalogue into Basic variables. Ideal for incorporating into your own programs so you can keep track of the disk's characteristics.

To get the hang of the routine, run it several times with a disk in the drive. After a few seconds, variable names, and their contents, will appear on screen. Using it in your own listing shouldn't be too hard. Once you have the variables assigned, you can use them, say, to build up a database containing all relevant information on your disks.

```
1 ' Catalogue to variables
2 ' by Martin Packer
3 ' Amstrad Action    August 1987
40 MEMORY &7FFF: MODE 0
50 'maximum number of files on disk is 64
60 DIM name$(63),type$(63),size$(63)
70 'install machine-code at &8000
80 FOR i%=&8000 TO &8038: READ code%:POKE i%,code%:NEXT i%
90 'get CAS_CATALOG printout in store
100 CALL &8000
110 MODE 1
120 'start of file entries is at &884f
130 mem%=&884F
140 drive$=CHR$(PEEK(&8841)): 'get drive name
150 'get user number - 2 digits
160 user$=CHR$(PEEK(&8849))+CHR$(PEEK(&884A))
170 FOR i%=0 TO 63: 'process file names
180 'check for out of files
190 a%=PEEK(mem%): IF a%=&D THEN files%=i%: GOTO 340
200 'get name
210 FOR j%=mem% TO mem%+7
220 name$(i%)=name$(i%)+CHR$(PEEK(j%)): NEXT j%
230 'get type
240 FOR j%=mem%+9 TO mem%+11: type$(i%)=type$(i%)+
    CHR$(PEEK(j%))
250 NEXT j%: mem%=mem%+13
260 'get size
270 FOR j%=mem% TO mem%+3
280 size$(i%)=size$(i%)+CHR$(PEEK(j%)): NEXT j%
290 mem%=mem%+6
300 NEXT i%
340 'files = maximum
```

```
320 files%=64
330 'get free space on disk
340 mem%=mem%+2: FOR j%=mem% TO mem%+3
350 free$=free$+CHR$(PEEK(j%)): NEXT j%
360 'print values of variables
370 PRINT"user$ holds '";user$;"'"
380 PRINT"drive$ holds '";drive$;"'"
390 PRINT"number of files in files% is ";files%
400 FOR i%=0 TO files%-1
410 PRINT"name$(";i%;") holds '";name$(i%);"'"
420 PRINT "type$(";i%;") holds '";type$(i%);"'"
430 PRINT"size$(";i%;") holds '";size$(i%);"'"
440 NEXT i%
450 PRINT"free$ holds '";free$;"'"
460 DATA &21,&d9,&bd,&11,&28,&80,&01,&03
470 DATA &00,&ed,&b0,&21,&2b,&80,&11,&d9
480 DATA &bd,&01,&03,&00,&ed,&b0,&11,&39
490 DATA &80,&cd,&9b,&bc,&21,&28,&80,&11
500 DATA &d9,&bd,&01,&03,&00,&ed,&b0,&c9
510 DATA &00,&00,&00,&c3,&2e,&80,&2a,&37
520 DATA &80,&77,&23,&22,&37,&80,&c9,&39,&88
```

Decompress pictures

If you have played with Rainbird's *Advanced OCP Art Studio*, you'll know that the picture can be compressed before saving. Unfortunately there is no way of decompressing these pictures from Basic – a pity as they take up less than half the ram-space of conventional screens.

Stuart Lockey of Weybridge, Surrey, has come up with the answer: a program to expand the compressed screens. There are two programs. The first, *Writer*, writes and saves the code to do the expanding. Run the second listing which loads the code as high in memory as possible. It also stores the Call address in a variable, `expand`. All you have to do is load the compressed picture at &4000 and `CALL expand`.

```
1 ' Writer
2 ' for pictures compressed using Advanced OCP Art Studio
3 ' by Stuart Lockey
4 ' Amstrad Action    August 87
10 FOR j=41000 TO 41186
20 READ a$
30 POKE j,VAL("&"+a$)
40 a=a+VAL("&"+a$)
50 NEXT
60 IF a=17679 THEN SAVE"coder.bin",b,41000,187 ELSE
   MODE 1: PRINT"Data error": STOP
70 MODE 1: PRINT"Code saved"
80 END
90 DATA 21,B8,A1,36,0,23,36,C0,21,BA,A1,36,0,23,36,40
100 DATA 21,BC,A1,36,0,23,36,40,23,36,0,23,36,0,23,36
110 DATA 0,23,36,0,23,36,0,2A,BC,A1,56,3E,4D,BA,28,2D
120 DATA 3E,1,BA,28,51,2A,B8,A1,72,2A,B8,A1,23,22,B8,A1
130 DATA 2A,BC,A1,23,22,BC,A1,2A,BA,A1,2B,22,BA,A1,21,BB
140 DATA A1,3E,0,BE,28,2,18,CF,2B,BE,C8,18,CA,21,BC,A1
150 DATA 4E,23,46,21,C0,A1,71,23,70,3,A,57,3E,4A,BA,20
160 DATA C4,3,A,57,3E,48,BA,20,BC,2A,BC,A1,23,23,23,23
170 DATA 23,22,BC,A1,18,C8,2A,BC,A1,23,22,BC,A1,2A,BC,A1
180 DATA 7E,57,2A,BC,A1,23,22,BC,A1,2A,BC,A1,46,2A,BC,A1
190 DATA 23,22,BC,A1,2A,B8,A1,70,23,22,B8,A1,15,2A,BA,A1
200 DATA 2B,22,BA,A1,3E,0,BA,20,EB,18,93
```

```
1 ' Picture expander
2 ' using code produced with Writer
3 ' once run, the variable expand will hold the address to
  call to expand a compressed picture loaded at &4000
4 ' by Stuart Lockey
5 ' Amstrad Action August 87
10 loc=HIMEM-200
20 IF loc<32968 THEN PRINT"Memory too low": END
30 MEMORY loc-1
40 LOAD"coder.bin",loc
50 DATA a,1,b,9,c,17,c,40,a,54,a,58,a,62,c,65,c,69,b,72,
   b,76,d,79,c,94,e,100,c,122,c,130,c,135,c,139,c,142,c,
   147,c,151,c,154,c,158,c,162,a,165,a,170,b,174,b,178
60 FOR j=1 TO 28
70 READ a$,r
80 IF a$="a" THEN v=loc+190
90 IF a$="b" THEN v=loc+192
100 IF a$="c" THEN v=loc+194
110 IF a$="d" THEN v=loc+193
120 IF a$="e" THEN v=loc+196
130 GOSUB 210
140 POKE loc+r,VAL(lo$)
150 POKE loc+r+1,VAL(hi$)
160 NEXT
170 MEMORY &3FFF
180 MODE 1
190 PRINT"To expand picture load compact screen at
    &4000, then CALL ";loc
195 expand=loc
200 PRINT: PRINT: STOP
210 v$=HEX$(v)
220 IF LEN(v$)=3 THEN v$="0"+v$
230 hi$="&"+MID$(v$,1,2)
240 lo$="&"+MID$(v$,3,2)
250 RETURN
```

Mixing hash and pound

T Lea of St Helens, Merseyside, has submitted a listing that solves the problem of printing pound (£) and hash (#). The two characters have to share Ascii code 35. If you send a listing to the printer containing both, either the hashes will come out as pounds or vice-versa, depending what country you're set for.

The listing uses standard Epson codes and works with printers having a choice of US and UK character sets. Make sure you have the dip-switches set to the UK language set. The routine checks what is sent to the printer. If a hash sign needs printing then T's program will switch to the US character set, print the hash and revert to the UK set.

You can use this routine from within *Tasword* (and from *Protext*, but its Setprint function already takes care of the problem) – and of course from Basic.

```
1 ' Hash/pound printing cure
2 ' by T Lea
3 ' Amstrad Action    August 87
10 h=HIMEM-&98: MEMORY h: check=0
20 FOR addr=h+1 TO h+&99: READ byte$: byte=VAL("&"+byte$)
30 POKE addr,byte: check=check+byte: NEXT addr
40 IF check<>&33AC THEN PRINT"Error in DATA": END
50 CALL h+1: FOR st=0 TO 8 STEP 8
60 PRINT#st,"print # and £ symbol set": NEXT st
70 '
80 DATA 21,e1,e9,22,30,00,f7,44,4d,21,7b,00,09,5e,23,56
100 DATA 23,7a,b3,28,11,e5,eb,09,e5,5e,23,56,eb,09,eb,e1
120 DATA 73,23,72,e1,18,e7,3a,2b,bd,2a,2c,bd,32,51,00,22
140 DATA 52,00,3e,c3,21,4e,00,32,2b,bd,22,2c,bd,3a,f1,bd
160 DATA 2a,f2,bd,32,71,00,22,72,00,3e,c3,21,54,00,32,f1
180 DATA bd,22,f2,bd,c9,32,7b,00,00,00,00,f5,3a,7b,00,fe
200 DATA 23,20,14,f1,e5,21,74,00,06,07,c5,7e,cd,71,00,30
220 DATA fa,23,c1,10,f5,e1,c9,f1,00,00,00,1b,52,00,23,1b
240 DATA 52,03,4f,00,26,00,29,00,2e,00,3d,00,40,00,45,00
260 DATA 56,00,5f,00,66,00,00,00,00
```

PROBLEM ATTIC



Patching *Wordstar*

I use *Wordstar* on a 6128 for my job as a correspondence tutor. I find it ideal, bar one little point. I have to use single sheets of headed paper in my job, and consequently every time I print I have to run through many tedious questions, selecting default on all but the last: "Pause at end of page?"

Thinking I could erase this hassle from my life, if I could change the default on that question from no to yes, I wrote to MicroPro to ask if this was possible. I received the following reply:

"You can default the answer to yes by changing the value from 00 to FF at location 03CD in WS.COM by using any debugger (DDT), or by using label patch method, again changing the value from 00 to FF at label PODBLK+3."

Now, I am very grateful for this information, but unfortunately know little about computers, and it's double-dutch to me. Can you help?

Ian Mackean
London

Pocket WORDSTAR

Unfortunately our Wordstar *setup file has gone walkies: I couldn't try patching* Wordstar *using the label-patch method. Instead I used DDT (Dynamic Debbuging Tool), which is on the CPM system disk. Follow the method below and you shouldn't run into any problems:*

- *boot up your CPM system disk*
- *when the* `A>` *prompt appears, type* `SAVE` *followed by Return*
- *type* `SID` *then Return*
- *place your* Wordstar *disk in the drive*
- *type* `rWS.COM` *at the* `#` *prompt, followed by a Return*
- *record the values displayed under MSZE and PC*
- *type* `s3CD`, *Return*
- *enter* `FF`, *Return*
- *hold the Control key while you type* `C`
- *at the "savename" prompt enter* `WS.COM`, *Return*
- *type the value that was displayed under PC when asked, press Return*
- *type value that was displayed under MSZE, Return*
- *wipe brow; it's all over*

Music on the 6128

I would like to order your book *Making Music on the Amstrad CPC 464 and 664*, but my son has a 6128. Although most programs seem to work, I would like to know if this book can be used for a 6128.

Mrs Tessa Robson
Braintree, Essex

The earlier versions of the CPCs maintain "upwards compatability" with later models. This means that anything written for a 464 will work a 664. Similarly anything written for a 664 will work on a 6128. So, yes, the book applies also to the 6128.

Where has it gone?

Could you explain why, after loading several blocks from tape and getting a read error, I cannot list or use any of the loaded blocks.

Surely these blocks were loaded into store as they were read in. Where have they gone?

G Smith
Sandy, Beds.

When you load a program the first block gets placed in a buffer – an area high in memory. If the block loaded succesfully, it will move down to its correct resting place. Each successive block loaded will go straight to its entry position. If you press the Escape key or reading fails during a load operation, you'll be returned to the Ready prompt. However, the loaded data is still in memory.

The reason you can't list the program (assuming it's Basic) is that it has an important part missing: the very first byte. This byte remains in the buffer until the complete program has succesfully loaded. The firmware then moves this value down, and you have a listable program. Its location is &170 – the start of Basic. You can experiment with a program you know loads: load it, list it (to make sure it's present) and then `POKE &170, 0`. *The Basic listing has now disappeared.*

Say you have part-loaded a program. You can list whatever's present by entering the following commands in direct mode.

464 version:

```
POKE &170, PEEK(PEEK(&B804)*256 + PEEK(&B803))
```

664/6128 version:

```
POKE &170, PEEK(PEEK(&B11C)*256 + PEEK(&B11B))
```

Merging programs

I am writing a suite of programs in Basic on my 6128 to solve various equations in engineering. The program has many `GOSUB`s to the various routines. However, as I constantly update certain sub-routines, I find it a chore to load the complete program and save it out when I've finished enhancing it. Is it possible to save subroutines separately and merge them together when required?

JH Shaw
Wargrave, Berkshire

The simplest way of doing this is to have one main program that contains all the mundane parts – such as setting up colours, mode and so on. Within this program you could have several `MERGE` *commands for each of the subroutines. You must take great care that none of the subroutines have overlapping line numbers, and that none of them will overwrite part of the main program. If you are using a disk system you'll have to save the subroutines as Ascii files, that is,* `SAVE "filename", A`.

For example, your main program could look something like this:

```
10 ' Control Program v1.20
20 GOSUB 210 ' setup
30 GOSUB 70 ' get keypress
40 MERGE "file1": ' equation for circle
50 MERGE "file2": ' calculate pi
```

Hanging on the telephone

What is a modem? Is it a little box that plugs your computer into the phone system? What exactly does it do? How does it work? Where can I get one?

D Yorks
Barnsley, Yorkshire

Yes, it is a device that lets computers talk to one another using the telephone network. The word "modem" comes from the first syllables of **modulate** *and* **demodulate**. *The computer's digital output – its ons and offs or* `1`*s and* `0`*s – must be added onto a carrier wave*

 Bug, où es-tu?

PROBLEM ATTIC



(modulated) before it can be transmitted as a sound. And at the other end the signal must be separated again from the carrier (demodulated).

Besides communicating direct with a friend's computer, you can use a modem to link into huge public databases such as British Telecom's Micronet (part of Prestel) or its more sophisticated electronic-mail network Telecom Gold. You can also dial into dozens of free "bulletin boards" operated by enthusiasts.

Subscribe to Prestel for a year and they give you a modem, albeit a one-speed job. Conversely, various modem manufacturers throw in an e-mail subscription if you buy their gear. We reviewed the Linnet modem from Pace Micro Technology in AA 21; the Nightingale (also from Pace, but sold under an Amstrad badge as well) was mentioned in AA 16 and 8.

Don't forget that you also need a serial (RS232) interface between the computer and the modem, and software such as Commstar *to control it. Some modem packages include all this.*

Setting up Setup

I think the Setup file under CPM 2.2 is one of the most useful, but probably one of the most underused due to lack of documentation. I would like to know how to select border, ink, mode and so on when altering the string sign-on option.

Steven Dunn
Cookham, Berks Micronet 919 994 911

Control characters are responsible for cursor positioning, mode, ink and so on when using Setup. The way you access control characters for the string sign-on option is not immediately obvious. Look at the back of the User Instructions; there is a section telling what functions certain control characters have.

To select a control character under Setup you must first type up-arrow (↑) – this shares a key with the pound sign (£). Then comes the code for the control character. So control code 0 is represented under Setup as `↑@`*, control code 1 happens to be* `↑A`*, control code 2 is* `↑B`*, and so on.*

Here are some of the more useful control codes and how they are represented under Setup:

control code	Setup code	number of parameters	action
0	↑@	0	n/a
4	↑D	1	set screen mode
7	↑G	0	rings bell
8	↑H	0	backspace
9	↑I	0	moves cursor right
10	↑J	0	moves cursor down
11	↑K	0	moves cursor up
12	↑L	0	clears screen
13	↑M	0	carriage return
14	↑N	1	set paper ink
15	↑O	1	set pen ink
24	↑X	0	swaps paper and pen
25	↑Y	9	define character
26	↑Z	4	define window
28	↑\	3	set ink colours
29	↑]	2	set border colours
31	↑_	2	position cursor

If you want a Mode 1 display, with border and paper colours set to black and ink colour set to white when you boot CPM, you would need to alter the string sign-on to read `↑\0aa↑\1ZZ↑]aa↑D1`.

Here is a rundown of what the first five characters do: The up-arrow tells the system a control character is to follow; the backslash translates to control character 28, meaning set the inks. Three parameters must follow this control character. The first (in this case, zero) indicates the pen that is to be altered; the next two characters tell the system which colours are to be used – `a` *stands for colour 0 (and A would be colour 1, B colour 2 etc). Experiment. It isn't too complicated once you get the gist of things.*

Serial printer and *Mini Office*

My computer setup consists of a 464 with DD1 disk drive and a serial 8056 printer. To use the printer I need to run a small patch file. I have no trouble using *Amsword* and the printer. Problems occur when using *Mini Office II* (on disk) and the printer: *Mini Office II* just doesn't load with the patch in memory. Any clues?

A Sheldon
Kirkstead, Nottingham

You didn't state how long ago you purchased Mini Office II. *The first version had several bugs. The version I tried has options allowing you to select a serial printer. I suggest you contact Database Software and demand an upgrade.*

No place for *Maxam*

After saving some time for the cartridge version of *Maxam*, I find Arnor has discontinued this particular setup. It looks as though I'll have to buy the rom version and a rom board instead. I don't expect to purchase any other roms, so buying a rom board seems rather excessive. Any ideas?

Mrs L Johnson
Hyndford, Lanark

Infotek Design, a company based in Northamptonshire, sells a cased rom card for £15.95 or uncased for £12.50. You can contact them on (0536) 20 1743. This is the cheapest rom board I know of. Add the price of Maxam *on rom and the rom-card – you'll find the price is similar to* Maxam *on cartridge.*

Your other alternative is to buy Maxam *on cassette or disk – the problem with this setup is you don't have the whole CPC memory at your disposal.*

Keep the drive whirring

Please could you tell me if there is a routine that will keep the disk-drive motor spinning for a set or indefinite time?

SP King
Feltham, Middlesex

What you need is `OUT &FB7E,1`*. This will cause the drive to whirr non-stop. An* `OUT &FB7E,0` *will stop the drive spinning.*

Curious to know, though, why you'd want to do it. Also curious to know your name: I sometimes think programmers take code too personally. Who are all these assembled bods G, JH, P, D and A anyway, SP?

What was that?

Having acquired an Amstrad 6128 after two years of using a Spectrum+, I am regretting the loss of many decent Speccy programs. Several weeks after buying the 6128 a package arrived from Infocom with, among other literature, a catalogue of programs. Now, was I dreaming or was there a utility advertised that transferred Spectrum programs to run on an Amstrad?

I have been trying without success to find Infocom's address. Can you help?

Ken Tyhurst
Brighton, Sussex

Has anyone else heard of this program? I have heard rumours about it, but have never managed to trace its origin. Can anyone help? Such a utility is highly unlikely to be from Infocom, which is an American company – very few Spectra there. (Infocom games are distributed in the UK by Activision.)

Master Blaster

Siren, true to name, lures our noise-loving Richard Monteiro

Sound Blaster

Siren Software, £29.99

Add two quality car speakers, a length of wire and a cigarette-packet-size box together, and what do you get? You have the latest gadget from Siren Software, the Sound Blaster. In the past Siren has put all its energy into utility software – this hardware add-on comes as a surprise.

The Sound Blaster, of the same genre as Maestro from Vanguard Leisure, is a system that gives your computer true stereo output. Two beefy three-way speakers (containing a 3-inch woofer, a 2-inch midrange and a tweeter) capable of 20 watts each are plugged into a tiny amplifier. From the amplifier come three leads: one goes into the CPC's stereo port, the other into its socket marked 5v DC, and the third connects to the monitor's power cable.

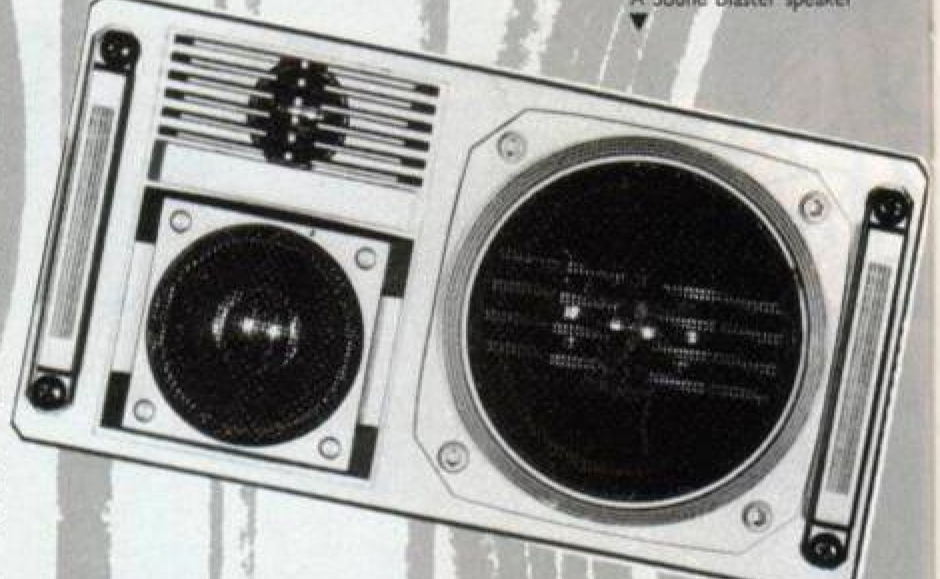
Once everything's plugged in load your noisiest game, sit back and listen. What? You can't hear anything? Well, turn up the volume controls. There are two controls so you can correctly balance the sound.

The sound quality is superb. It adds much to games, making them atmospheric and all the more enjoyable. You won't be able to blow the roof off: the amp can deliver only 2 watts. This is loud enough, mind, especially in the confinement of your room.

A pair of stereo headphones is supplied – "for a limited period", Siren's introductory offer. Plug the phones into the amp for personal listening or to avoid annoying the neighbours. A nice touch is the pair of red LEDs that glow when the Blaster is plugged into your computer.

The Sound Blaster is a marvellous addition to your computer: it is not expensive compared to the competition, does a better job, looks impressive and endows your machine with a mean sound.

AA



A Sound Blaster speaker



Siren Software ☎ 061-228 1831
2 Oxford Road, Manchester, M1 5QE

GOOD NEWS	BAD NEWS
■ The two quality speakers are capable of lots of lovely noise. ■ Cheaper and better than the rest. ■ Headphones included free (at present).	■ Amplifier can put out only two watts per channel.

New in the disk tricks

We play with a fresh suite of disk utilities

Supadisc

Stradsoft, £9.99 disk only

A company new to the CPC market, Stradsoft, has released its first product, *Supadisc*. First impressions are favourable. But is there room in the market – already flooded by *Oddjob, Locksmith Plus, Master Disc, Bonzo Doo Dah* etc – for another disk utility package?

Supadisc offers several useful utilities:

Directory Editor lets you edit the catalogue track of any disk.
Sector Editor will alter the contents of disk sectors, including those with non-standard formats.
Quick Formatter will format disks to CPM, data or IBM format.
Large Formatter formats disks in a standard way, but gives 13k extra storage on each disk.
Archiver saves all the disk contents to cassette.
Disk Backup lets you copy disks including those formatted by Large Formatter.
Protection Remover will enable you to load Basic files saved with the ,P option.
File Information gives an extended catalogue of either tape or disk files.
Turbo Disk speeds up drive operation.
View File gives a hex or Ascii dump of any specified file.

The presentation of *Supadisc* is pleasing. When you choose from the menu, *Supadisc* offers to display instructions – on either screen or printer – before loading your option. You can even dump the complete operating instructions to printer in one fell swoop.

Have you used other programs that give an increased-capacity format? If you have you'll understand the problems of copying files to and from standard formats. *Supadisc* eradicates this hassle: it formats the disk in the standard way, but gives an extra 13k of storage by formatting 43 tracks instead of 40. Then all you need do is a couple of pokes at the beginning of a Save session. It's the most trouble-free method I've encountered.

Although many CPC users will already have disk utilities, *Supadisc's* features are done exceedingly well – and more to the point, they work correctly. If you haven't got a package of this type, this is probably your best bet.

AA

Stradsoft
67 Healey Crescent, Leicester, LE3 2SE

GOOD NEWS	BAD NEWS
■ Friendlier than most utility software. ■ Instructions can be sent to printer. ■ Clever way of increasing disk capacity.	■ Not possible to go back to main menu after using many options. ■ Similar products already on the market.

 Dig that funky beat

THE NEW AMX MK. III MOUSE. TRAP ONE SOON.

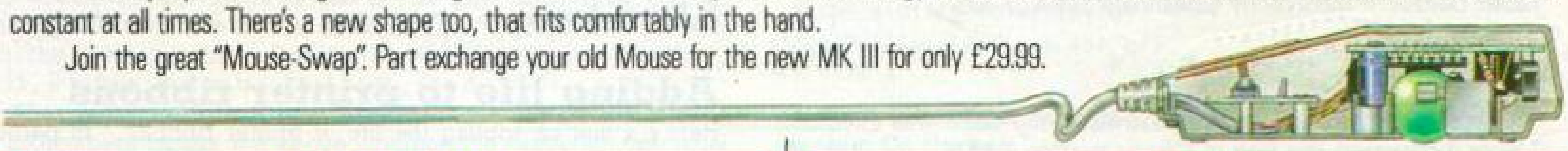


ART AND CONTROL — STOP PRESS

The MK III AMX Mouse is a product of Swiss precision and the result of a world-wide search to find a worthy successor to the AMX Mouse MK II. The new Mouse has been specially chosen to be the perfect partner to the ever expanding range of AMX software.

The unique patented design includes high resolution D.P.I. and superior ball technology to ensure that contact between the Mouse and the surface is constant at all times. There's a new shape too, that fits comfortably in the hand.

Join the great "Mouse-Swap". Part exchange your old Mouse for the new MK III for only £29.99.



*ART AND CONTROL

AMX MOUSE MK III PLUS ART AND CONTROL, TAPE AND 3" DISC, £69.99

Acknowledged as the most sophisticated yet easy to use paint package available for the Amstrad CPC, it's no wonder over 20,000 have already been sold.

AMX Art features include cut, copy, paint, plus many, many more such as fantastic spray and zoom facilities. The package also includes AMX control which enables you to create a mouse environment in your own programs. Available for Amstrad CPC 464, 664, 6128. Please state which version is required when ordering.

*STOP PRESS

AMX MOUSE MK III PLUS STOP PRESS, 3" DISC £79.99

The most highly acclaimed desktop publishing software available for the Amstrad CPC. Already thousands of users are producing professional documents, newsletters, fly-posters etc. In fact anything where text and graphics are required. 'Stop Press' comes complete with 16 variable typefaces. Available for Amstrad CPC. 6128, CPC 664 (+64K min add on Ram), CPC 464 (+64K min add on Ram + Disc Drive). Please state which version is required when ordering.

STOP PRESS (ONLY) £49.99

EXTRA! EXTRA! 2 × 3" DISC £24.99

300K fantastic clip art and over 25 extra fonts.

*MAX 3" DISC £19.99

MAX provides an easy to use graphic based front end to your computer's disc filing system including a comprehensive set of disc management operations such as cataloging, copying, deleting and re-naming. Also included are disc utilities such as sector editing, recovering erased files, formatting, verifying and faster tracking. You can also run programs from within AMX. Available for Amstrad CPC, 464, 664, 6128. Please state which version is required when ordering.



*AMX MAGAZINE MAKER 3" DISC £129.99

A combination of Stop Press and the Rombo Vidi-Video digitiser. Using any video and the digitiser, images from a camera or TV can be converted into a graphics screen with Stop Press to illustrate magazines or newsletters. In fact anything that needs to be created on A4 size paper. With Stop Press's many features a variety of pictures can be composed, the only limit being your imagination.

ROMBO VIDI DIGITISER (ONLY) £89.99



There is also a growing list of AMX support software including: AMX 3D Zicon (3" Disc) £24.99 with Zicon you can transform vector data into on screen graphics. Printers and plotters are fully supported, AMX Utilities (3" Disc) £19.99 Utility software for the original art program supplied with AMX Mouse. A Mouse and Interface (only) can be purchased for £34.99 direct from AMS using the order form enclosed in MAX, Stop Press and AMX 3D Zicon. These superb products are available from all good computer dealers or direct by cheque, Access or Visa. All prices include VAT and post and packaging.

FOR INSTANT ACCESS, VISA ORDERS TELEPHONE (0925) 413501/2/3

*ALL THESE PROGRAMS WORK WITH KEYBOARD, JOYSTICK OR MOUSE.

AMX SOFTWARE

·IMAGINATION AT YOUR FINGERTIPS·

ADVANCED MEMORY SYSTEMS LTD. 166/170 WILDERSPOOL CAUSEWAY, WARRINGTON, WA4 6QA. TELEX 628672 AMSG. FAX 0925 58039.

TUBELINK ON PRESTEL *800256# SUPPORTS THE AMX MOUSE, AND ALL AMS SOFTWARE

HOT TIPS

Exterminating *Pagemaker* bugs, reviving dead ribbons and worn keys. These and more tricks revealed.

Beware *Laser Genius*

When using an assembler, people often write `SUB A, n` rather than `SUB n`. Neither is incorrect. Problems occur, however, if you use *Laser Genius*. It incorrectly assembles `SUB A, n` as:

```
SUB A
LD SP, HL
```

This would, of course, prove disastrous if the code was executed. I have discovered this bug in *Genius* version 1.04.

Rhys Jones
Orton Goldhay, Peterborough

Thrust scroll

Have you ever wondered how Firebird makes the screens in *Thrust* and *Star Firebirds* scroll upwards? Well, here you have it in the form of a short listing:

```
10 OUT &BC00,1:FOR x=1 TO 40
20 FOR t=1 TO 50:NEXT t
30 OUT &BD00,x:NEXT x
```

Patrick Connolly
Clogerhead, County Louth

Mixing Input and Inkey

`INKEY$` is the more usual method of detecting a pressed key, but it is slow. `INKEY` is faster and using `IF INKEY(47) > -1 THEN...` means that the shift and control states can be disregarded. The problem with this method is the keys pressed are entered into the keyboard buffer – if you use a command such as `INPUT` following `INKEY` the character corresponding to the key you pressed will appear on screen. The solution is to flush the keyboard before and after the `INKEY` command. There seem to be a number of ram routines which flush the keyboard buffer. I use CALL &BB09.

```
10 CALL &BB09: IF INKEY(47)>-1 THEN CALL &BB09: GOTO 20
   ELSE GOTO 10
20 PRINT "YOU PRESSED RETURN"
```

The example waits until you hit the spacebar. Then it prints a message. The number 47 following the INKEY command refers to the spacebar: you will find a list of key numbers printed on the 6128's case or at the back of the user manual.

Tony Green
Droitwich, Worcestershire

And there's £20 input to your bank for this hot tip, Tony.

Cures for *Pagemaker*

Here is a short routine which corrects two of the more annoying bugs in *AMX Pagemaker*. First, it increases the printer timeout so that slow printers such as the DMP 2000 can be used. Second, it removes the bug in the circle routine which leaves a dotted line on the screen when a graphic window is defined.

To use the routine, run it with a copy of the master disk in the drive. The program will amend *Pagemaker*. The version I own is CD 0.93 B – it is inadvisable to use this routine on any other version. Lines 20 to 130 inclusive are for the printer routines. Lines 140 to 170 deal with the circle routine.

```
10 MEMORY &3FFF
20 FOR t=1 TO 50:NEXT t
30 LOAD"pagemake.ov2",&9CFE
40 a$="pagemake.ov2":|ERA,@a$
50 POKE &9E93,&1F
60 SAVE"pagemake.ov2",b,&9CFE,&26A
70 LOAD"pagemake.ov3",&9CFE
80 a$="pagemake.ov3":|ERA,@a$
90 POKE &9E3D,&1F
100 SAVE"pagemake.ov3",b,&9CFE,&1DF
110 LOAD"pagemake.ov4",&9CFE
120 a$="pagemake.ov4":|ERA,@a$
130 POKE &9EB0,&1F
140 SAVE"pagemake.ov4",b,&9CFE,&26F
150 LOAD"pagemake.ovi",&4000
160 a$="pagemake.ovi":|ERA,@a$
170 POKE &419C,0:POKE &419D,0:
175 POKE &419E,0
180 SAVE"pagemake.ovi",&4000,&BD1
190 CLS:PRINT"Pagemaker patched"
```

Tony Hoyle
St Annes, Lancs

Adding life to printer ribbons

Here's a hint on tripling the life of printer ribbons – in particular those belonging to Shinwa and Mannesmann Tally printers.

When the central inked portion of the ribbon is exhausted tilt the front end of the cartridge by 3mm – in doing so exposing the unused part of the ribbon to the print-head. This will add a life to the ribbon.

Once this has been used up, open up the cartridge, remove the the ribbon and rethread it upside-down – the third life.

This technique may work with other ribbon cartridges. Experiment. It works a treat and saves money.

Peter Ng
Basildon, Essex

Fuzz

How about this one-liner for some very odd on-screen effects?

```
10 OUT &BC00,INT(RND*255):OUT &BD00,INT(RND*255):GOTO 10
```

David Bowman
Rotherham, S Yorkshire

Stop letters vanishing

Fading letters on Roger Payne's 6128 console (Reaction 21) can be halted. Dash to your local hobby shop and buy a modeller's small paintbrush and a pot of clear acrylic varnish. Brush small dabs on top of each key. Leave for about six hours until dry. You now have a keyboad that won't lose its letters.

A Pocock
East Street, Walworth

■ Re-mark the keys with rub-on or dry-transfer letters. WH Smith's pack number seven matches the present style and size very well. The life of these and other keys can be extended with a thin film of varnish. Ronseal is good, or even clear nail-varnish will do the job. Be careful not to put too much on at once: a better result can be obtained by building up layers gradually, allowing plenty of time to dry between layers.

Alan Disdale
Clacton-on-Sea, Essex

Shaky sound

The small routine is useful for sprucing up your own program.

Simply type it in and renumber to your liking. When run it will give an explosion-like sound and the screen will judder realistically.

```
10 ENV 1,15,-1,20
20 OUT &BC00,8:OUT &BD00,1
30 SOUND 1,0,300,15,1,,31
40 WHILE (SQ(1) AND &80)<>0
50 WEND
60 OUT &BC00,8:OUT &BD00,0
```

M Worsley
Fareham, Hants

Upside-down

If you want to play a joke on somebody try the listing below. Type it in and run. It turns the character set upside-down. You can get back to normal by entering `SYMBOL AFTER 256`.

```
10 MODE 2:SYMBOL AFTER 32
20 FOR a=32 TO 255
30 LOCATE 1,1: PRINT CHR$(a)
40 SYMBOL a,PEEK(&F800),PEEK(&F000),PEEK(&E800),
   PEEK(&E000),PEEK(&D800),PEEK(&D000),PEEK(&C800),
   PEEK(&C000)
50 NEXT a
```

Paul Bower
Newbury, Berks

Bankmanager update

I was leafing through issue 17 and in Hot Tips discovered a small article by GR Andrews on the Bankmanager. I agree with his first point: the correct syntax of one of the commands is `|BANKWRITE, r%, a$, d` rather than `|BANKWRITE, @r%, a$, d`.

After messing around with bankmanager RSXs I discovered that somewhere before the above command is executed, you must define `r%` to be zero or 54 or whatever you fancy. Once assigned the `BANKWRITE` command will function correctly. The reason is that instead of passing the value of `r%` to the routine, it passes the address in memory of the value of `r%`. In this way `r%` can be altered by the routine.

In point 3, Mr Andrews talks about saving numbers in strings using the `STR$` command. Do not forget that this will put either a blank or a minus sign at the beginning of the resulting string – thus making it bigger than the alloted size given in the `|BANKOPEN` command.

Phillip Connor
Leamington, Warwickshire

Format detecting

If you wish to determine the format of a disk run this program.

```
10 OPENOUT"Y": CLOSEOUT
20 a=PEEK(43167)
30 IF a=193 THEN PRINT "DATA";
40 IF a=65 THEN PRINT "CPM";
50 IF a=1 THEN PRINT "IBM";
60 PRINT " Format"
```

T Middelkamp
Holland

Dotty characters

Continuing with the crazy character fonts, here's a progette that gives you a dotty character set. SYMBOL AFTER 256 switches off the effect.

```
10 CLS:SYMBOL AFTER 32
20 FOR a=HIMEM TO HIMEM+767
30 b=PEEK(a):POKE a,b AND b/3
40 NEXT a
```

Michael Unreadable Surname
Stanley, Co Durham



HACKERS ONLY

The section that brings the CPC's darkest secrets to light. If you don't understand what's written here, bad luck. You'll get no explanation, for this is where the hackers hang out.

Floating point

Floating-point arithmetic is one of the hardest things to program using machine-code. So why not save yourself a lot of hassle and use Basic's built-in maths functions?

All maths routines are held in the lower rom. They are regularly called by the Basic rom from vectors held above the firmware routines. These vectors start at &BD3D on the 464 machine and at &BD5E on the 664 and 6128.

Basic stores real variables in five bytes in a coded form. Start by converting the value to binary.

- Add together the number of significant bits before the decimal point; add &80 to give byte 5.
- The fourth byte comes from ignoring the left-most bit and converting the seven remaining bits into decimal. If the number is negative, &80 is added to it.
- Bytes 3, 2 and 1 are obtained by taking the remaining bits in groups of eight and converting them into decimals.

As an example, say you had the number 1234. Expressing 1234 in binary gives `100 1101 0010`. The number of binary digits is 11, so byte 5 = 11 + &80 = &8B.

Ignoring the first bit, but getting the value for the next seven, we have byte 4 = `00 1101 0` = &1A. Our original number is not negative, so byte 4 remains as &1A.

The following eight bits give us the next coded byte: byte 3 = `010 0000 0` = &40.

As there are no further bits, bytes 2 and 1 are zero. We now have all five bytes:

```
00 00 40 1A 8B
```

Go forth and add

Suppose we wished to add 1234 to 1234. Using the Basic vector at &BD58:

```
ORG &9000
LD HL, first number
LD DE, second number
CALL &BD58
RET

first number
DB 00,00,&40,&1A,&8B

second number
DB 00,00,&40,&1A,&8B
```

`HL` points to the five bytes representing the first real-number in coded format. `DE` points to the second value in coded format. After the call `HL` will point to the result – held in `first number`, which you must decode.

The example shown is not the best possible. There are simpler methods of adding two identical numbers. Still, it shows you how to use the Basic vector.

These are the vector locations for adding, subtracting, multiplying and dividing in that order.

On the 464: &BD58, BD5B, BD61, BD64.
On the 664 or 6128: &BD79, BD7F, BD82, BD85.
Remember `HL` points to one number, `DE` to the other. After the call `HL` points to the result.

Join the fourth dimension

Richard Monteiro recounts minutes from his encounters with a real clock

Real-Time Clock

DK'tronics, £34.95 – 464 and 6128 only

Not long ago DK'tronics produced innovative plug-ins at an extraordinary rate. Not much new has come from the Norfolk firm in recent months. November '86 saw the release of its last Amstrad hardware gadget – which turns your monitor into a television. Now, more than six months later, DK't is ticking once more: a real-time clock is the offering.

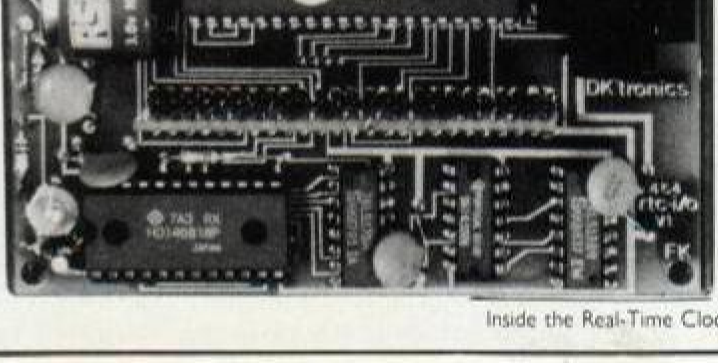
A real-time clock is something that keeps an accurate account of the time – "the time sponsored by Accurist" is a good example. The word "real" means time in the outside world as opposed to internal computer clocks, which can be upset by factors such as loading a program or even by a program running in memory (not to mention by shutting the machine off!)

All DK's products are enclosed in a case – matching to a tick – your Amstrad's bodywork. DK't always makes two models of each add-on: the 464 and 6128 are different heights and have expansion slots in different positions. The 664 loses out: neither model fits satisfactorily. An obvious solution is a length of ribbon cable between 664 and plug-in.

Rip open the packaging and you will discover the real-time clock (RTC), software on cassette and a thin manual.

Read the manual carefully before jumping into the clockworks. It's heavy reading and not ideal for beginners or those without a slight bias towards the technical side of computing. Examples are few and far between. Much is left to your experimenting. The text deals with installation (tells you to switch off the computer before inserting the RTC, thank you), extra commands supplied by the software and an eight-way input-output port. Unfortunately there is only the briefest of operating instructions.

The RTC has battery back-up and retains the time in a few bytes of its own ram even when the computer is switched off for several months. While the computer is in operation a nickel-cadmium battery charges up.



Inside the Real-Time Clock

For those in the peek and poke trade there are a few spare bytes of clock-ram. And, if you've got other wires in the real-world, there is an eight-way input-output port – controlled by a Z80 PIO (peripheral input-output) chip. Just don't expect any suggestions in the manual for using it.

The easiest way to get the RTC ticking is to use the supplied software. This consists of several new commands to set the time and alarm, read the time or alarm-time and display the time. There are a couple of others that deal with the reading and writing to the extra clock-ram.

Because of the lack of instructions, you may find using the additional commands rather a chore. Persevere and you'll be pleased with the results. Particularly nice is the RTC's ability to maintain and update the year, month and date – it handles leapyears, weekdays and all. The alarm function is also a treat: it can be set from once a day to once a second. By using one of the extra bar-commands you can display the time – in hours, minutes and seconds – at any position on the screen constantly.

Over to CPM

There is a bonus for CPM Plus users: CLOCK.COM is also supplied on the cassette. This CPM utility – when transfered to disk – allows you to modify the time or date held in the RTC or CPM's internal clock locations. With this you can date-stamp files. CPM's internal clock is software-controlled, which means it will fall slightly behind true time. This is not a great restriction as date-stamping doesn't log the seconds anyway. Of course this doesn't affect the timekeeping of the RTC.

Apart from the manual – which lacks information in several departments – I have no serious gripes. Having a clock plugged into your computer is handy on occasions, but not exactly essential (though one thing we at *AA* would like is a way of date-stamping *Protext* files without going into CPM). If you are competent in programming or electronics then I'm sure the 50-odd bytes and eight-way port will get your grey-matter moving. ***AA***

Using the port

You get an eight-way input-output port with the real-time clock. But what use is it? Don't look at the instruction manual. It gives no clues.

Many things can be plugged into the port: mouse, extra joystick or keypad, measuring or sensing devices such as a barometer, thermometer or pressure pad, and controllers for model railways or robots or even the washing-machine. All these add-ons require feet-wetting. You'll need to be a dab hand with a soldering iron and even better at pushing a byte or two round the computer's memory.

A couple of low-priced books published by Bernard Babani may help you on your way: *Easy Add-on Projects for Amstrad CPC 464, 664, 6128 and MSX Computers* (ISBN 0 85934 145 3) and *Electronic Circuits for the Computer Control of Robots* (ISBN 0 85934 153 4). Both cost £2.95.

DK'tronics ☎ (0493) 60 2926
Longs Industrial Estate, Englands Lane, Gorleston, Great Yarmouth, Norfolk, NR31 6BE
Bernard Babani (Publishing) Ltd
The Grampians, Shepherds Bush Road, London, W6 7NF
(Any bookseller will know what to do with the International Standard Book Number.)

GOOD NEWS

- Comes in the usual smart DK't box.
- Handy to have time appear on screen.
- Flexible alarm function.
- Maintains correct time even if switched off for months.
- I/O port lets you contact the real world.

BAD NEWS

- Documentation is hard going.
- Software not as complete as it could be.
- Why no real-world examples of using I/O port?



NOW IS YOUR CHANCE TO PARTICIPATE IN 1987'S MOST EXCITING RECORD-BREAKING EVENT – THE FIRST EVER SUCCESSFUL CROSSING OF THE ATLANTIC OCEAN BY HOT-AIR BALLOON!

RICHARD BRANSON AND PER LINDSTRAND (THE BALLOON'S DESIGNER) MAN THE 'VIRGIN ATLANTIC FLYER' AND THEY HAVE BEEN CHALLENGED TO A RACE BY ANOTHER BALLOONIST!

THIS SPLIT-SCREEN ARCADE GAME IS FULL OF ACTION AND IS DESIGNED FOR EITHER ONE OR TWO PLAYERS. YOU PLAY A POWERFUL, BUT MISCHIEVOUS EAGLE THAT CAN HELP (OR HINDER!) RICHARD. YOU CAN HELP CONTROL RICHARD'S (OR HIS RIVAL'S) BALLOON ALTITUDE AND COURSE AND HELP WARD OFF THE DASTARDLY HINDRANCES THAT HAVE BEEN ARRANGED FOR YOUR DOWNFALL (LITERALLY!).

YOUR OPPONENT ALSO HAS AN EAGLE AS A MASCOT AND BETWEEN THE PAIR OF YOU IT IS OUT AND OUT WAR MOST OF THE TIME!

SO TAKE FLIGHT AND GOOD LUCK!

TRANSATLANTIC BALLOON CHALLENGE is available from all good software retailers, or directly from us. Please make crossed cheques or postal orders payable to Virgin Games Ltd and send to Virgin Games Ltd, 2/4 Vernon Yard, Portobello Road, London W11 2DX. PLEASE DO NOT POST COINS OR MONEY!

☐ Commodore 64/128 (£7.95) ☐ Spectrum 48/128 (£7.95)
☐ Amstrad CPC cassette (£7.95) ☐ Amstrad CPC disc (£12.95)

Name ____________________

Address ____________________

____

Total money enclosed ____________________

WORDS WORK

How to get the most from your word-processor and printer. A new regular feature.

Here you are. A section of the magazine devoted to the word-processor user. Every month we'll look at certain aspects of word-processing: speeding things up, making a neater job, tips, tricks and answering your queries. To remain sane we have decided to limit the number of word-processors covered: the more popular such as *Protext*, *Tasword* and *Wordstar* will be looked at. We kick off this month with a look at setting up.

It is important to have your word-processor tuned to your taste. This makes life easy and production a lot faster. Things such as colour choice and key combinations may seem trivial, but if you constantly use a word-processor these trivial irritations become unbearable.

Tuning *Tasword*

Various versions of *Tasword* exist: *Tasword 464*, *Tasword D* and *Tasword 6128*. They all have a Basic loader which makes it easy to set them up.

Load the Basic *Tasword* loader and type `LIST`. You should see Basic commands such as `KEY`, `BORDER` and `INK`. If you wish to customize *Tasword* it is best to remove all these commands.



Tasword works in Mode 2, which means only two colours are allowed on the screen: one background colour (`PAPER`) and one foreground (`PEN`). If you want the text in black, and the border and paper in white, you would need to add a new line to the loader, like this: `23 INK 0,26: BORDER 26: INK 1,0`.

If you're not sure how the Ink and Border commands work, a quick scan through the User Instructions won't go amiss. However, here are a few pointers: the number following `BORDER` refers to the colour; the first number after `INK` refers to the inkpot (in this case there are only two, the background and foreground). The second number indicates the colour. The CPC manual has a list of numbers and the colours they represent.

Using KEY

When word-processing, it is handy to have often-used phrases or sequences of control codes available at the touch of a single key. This effect can be implemented using Basic's `KEY` command. For example, try entering this line:

```
24 KEY 0,"Amstrad Action" + CHR$(13) + "Future Publishing Ltd"
+ CHR$(13) + "4 Queen Street" + CHR$(13) + "Bath" + CHR$(13) +
"BA1 1EJ" + CHR$(13).
```

This causes our full address to appear just by pressing *f0*. The `"CHR$(13)"` is of course the Ascii code for end-of-line.

Naturally, you can place whatever you like in the function keys. Remember you have 32 of them: Shift and Control states also count. Take care that the content of an individual key doesn't exceed 120 characters – otherwise you'll get an error message.

Once you have added all the bits and pieces to the *Tasword* loader, save it. Whenever you load *Tasword*, it will be set to your requirements.

It is possible to alter everything described earlier from within *Tasword*, but unfortunately it's only temporary. There is no option for saving the alteration: every time you load *Tasword* you will have to configure it to your liking – what a pain. You must go into Basic to do it permanently.

Playing with *Protext*

Arnor's *Protext* is similar to *Tasword* in that it has a small Basic loader before the main program. Again you can create a personalized loader if you wish – in fact, Arnor encourages this.

At *AA* we work on green screens: a black background (that is, `INK 0,0`) and white text (`INK 1,26`) is the easiest to work with. Before the final document is put through to the typesetter, it needs codes (just as the dot-matrix printer needs control codes for italics and bold). Phototypesetter codes are usually more wordy: the programmable function keys come in handy. For example, to produce *slanted* print we use the command `[/]`; `[:]` stands the letters upright again. In the *Protext* loader we define certain function keys to produce these and other effects.

The *Protext* manual lists special codes if you want to build various keystrokes onto a function key: Shift-0, for instance, takes the cursor to the next word, and in *Protext* this is `CHR$(247)`. By making good use of function keys you can save a good deal of time and effort.

It is very easy to make tiny alterations in the setup of *Protext* during operation: typing `quit` or `q` from its command mode returns you to Basic – not only that, but you'll find the loader program still there: just type `LIST`. From here you can alter colours, redefine keys or program function keys. Typing `|P` returns you to *Protext* – neat.

Discovering *Pyraword*

Pyraword is customized in a different way from *Tasword* or *Protext*: everything is altered from within *Pyraword* and saved as a User Options file. This means you can have numerous setup files and can pick a particular one for a particular job.

Nine function keys are available under *Pyraword*, and each can hold 32 characters. Pressing *f0* displays their contents; the small Enter key lets you alter them. As *Pyraword* needs two keystokes to get to the top or bottom of a document, it makes sense to use a function key for this purpose.

From edit mode, Control-Z takes you to command mode. From here you can alter all sorts of things: pressing J or K will change the paper and pen colours respectively. L or S will load or save the User Options: colours, tab stops and keystroke memories. When *Pyraword* loads, it searches for a User Options file called Wpsvopts.-Usr (not mentioned in the manual). If you save your alterations under this name then there is no need to load them manually.

Wordstar under 2.2

This section deals with creating an everyday *Wordstar* work disk. It will instruct you how to auto-start *Wordstar*, select the colours and define keys, among other things. Before going any further, you will need a CPM 2.2 system disk and a disk containing *Wordstar*.

Boot up your system disk and type `SETUP` at the `A>` prompt. Eventually a message will appear: `Initial command buffer... is this correct? (Y/N)`. Before answering, insert your *Wordstar* disk into the drive. Then press N. This allows you to enter a command that will automatically execute when you type `|CPM` at the beginning of the day.

Your entry should look like this: `WS↑M`.

As you know, WS is the





filename for *Wordstar*. The up-arrow (↑) tells the system a control-key instruction follows; in this case Control-M means Return or Enter.

Once you've typed that lot, press the Return key. A confirmatory message will appear – just press Y. Another option will come to view: `Sign-On string... Correct?` All the options will give you the option of altering them. Say yes-it's-correct in each case unless stated otherwise.

From here, colours can be selected and text displayed on boot-up. This could be a useful sign-on string:

```
↑\@ww↑\a@@↑]wwWordstar work disk↑M↑JCustomized by Fred Sugar↑M↑JVersion 2.11↑M↑J↑M↑J.
```

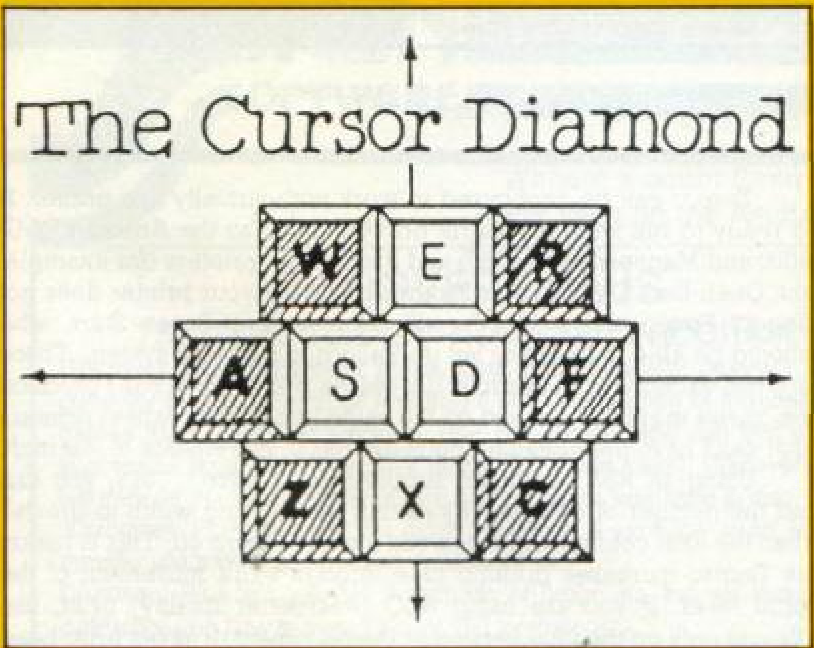
This will set the paper and border colour to white and text to black. It will also display a message. By all means use your own messages and set the colours that you find comfortable to work with. For a fuller explanation of the symbols refer to "Setting up Setup" in this month's Problem Attic.

The next option, when you get to it, is `Printer power-up string....` You can use this to send control-characters or text to the printer – for example, to switch on NLQ (near-letter quality) or italic print. Control characters again are prefixed with "↑". Here's a suggestion: `↑[@Wordstar printer initialization↑M↑J↑M↑J`. It resets the printer and prints a short message.

Your printer must be on-line when you boot CPM. If it isn't, CPM waits until it is.

Custom keys

The next function is possibly the most important. It lets you alter key definitions. *Wordstar* uses the standard CPM cursor-movement keys: Control with S, D, E and X for left, right, up and down. Not only are these keys a pain to remember, but they are awkward to access. How much nicer to define the cursor cluster (which wasn't invented when *Wordstar* was born) to do this job. Easily done from the option `Keyboard translation....`



Selecting this option produces a sub-menu:

```
A - add key translation (key no., normal, shift, control)
D - delete key translations (key no)
C - clear all translations
F - finish translations
```

We are interested in only A and F. Type exactly the following, pressing Return at the end of each line:

```
A 8,19,1,141
A 0,5,18,142
A 2,24,3,143
A 1,4,6,144
A 17,123,91
A 19,125,93
A 16,7,7,20
F
```

The `A` at the beginning of each line indicates the option you wish to use. The next number refers to a key number. If your machine is a 664 or 6128 look on top of the disk drive: there is a handy diagram of the keyboard and key numbers. 464 owners will find it in the User Instructions. The rest of the numbers on the line tell the machine what character to print when the key is pressed on its own, with Shift or with Control – in that order. At the back of the User Instructions manual is a table showing characters and their corresponding Ascii codes.

The 8 in the first line is the key-number for ◊ on the keypad. The next number, 19, is the character that will appear when the left-arrow is pressed: Control-S, *Wordstar*'s "cursor left". Shift-◊ is programmed by the next number: Control-A (Ascii 1) is used by *Wordstar* to move to the left by a word. The last figure, affecting Control-◊, is above 127 which means it isn't an Ascii character. *Wordstar* and other CPM applications will ignore this.

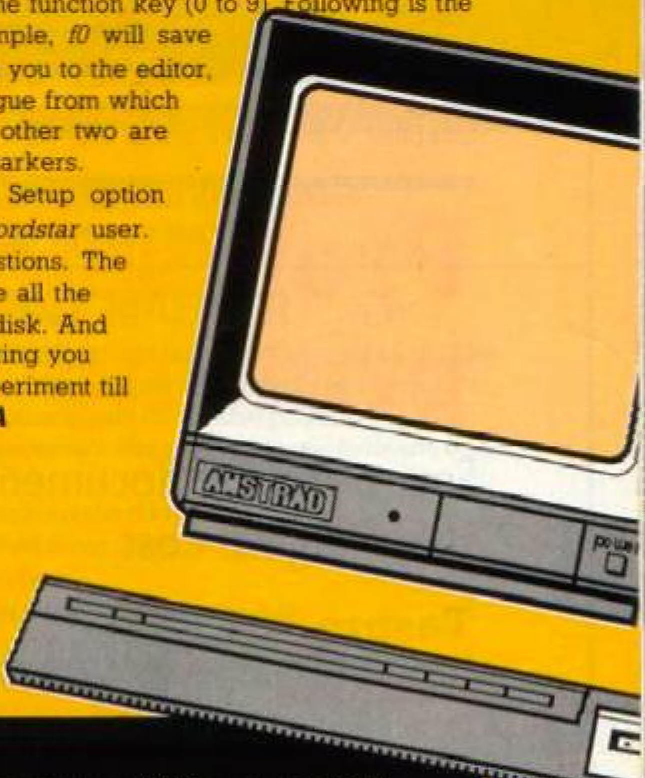
Function keys

Certain functions in *Wordstar* need two or three keypresses – Control-QR to get to the top of the text, for example. It is very easy to hit the wrong key or forget the correct sequence. This is where the next Setup option, `Keyboard expansions...`, comes in handy. It works on the same principle as Basic's KEY command: you can define the function keys to produce a string of characters when you hit one of them.

Entering function-key definitions is done the same way as defining keys. Some useful definitions:

```
A 0,↑KS
A 1,↑K↑J↑F
A 2,↑K↑B
A 3,↑K↑K
```

The first number refers to the function key (0 to 9). Following is the key sequence. In our example, *f0* will save the current file and return you to the editor, *f1* will show the disk catalogue from which you can delete a file. The other two are for start- and end-block markers.



And that was the last Setup option of any real use to the *Wordstar* user. Answer Y to all other questions. The penultimate option will save all the changes to your *Wordstar* disk. And finally CPM will re-boot letting you see all your alterations. Experiment till your system suits you. ***AA***

Have you a way with words?

Do you have favourite tricks for getting the best out of your word-processor? Share them with other Amstrad addicts. Send them in to "Words Work", *Amstrad Action*, 4 Queen St, Bath, BA1 1EJ.



Stuff the buff

Richard Monteiro finds you don't get in a huff with a printer buffer

MicroStuffer
Frontier Software, £49.95

Have you ever sat in front of your monitor, twiddling your toes, waiting for control to return to the computer while the printer noisily churns away? Go on, admit it. This problem always occurs when you print a long document or dump a screen. Frontier Software to the rescue! Frontier's Microstuffer is a smart device (with a smart price – half that of most competitors) that lies between computer and printer, unjamming the traffic, so you can get on with more important tasks *[like twiddling your moustache – Prod. Ed.]*



A printer buffer stores data en route to the printer. The computer shoves data out at high speed to the buffer. The buffer sends it to the printer when the printer is ready to accept further information.

The Microstuffer comes with 32 inches of ribbon cable, its plug fitting the printer's Centronics port. Your existing printer cable joins the computer to the Stuffer. There's also a power supply to support the buffer's 64k ram. It's a nifty little transformer-rectifier that can convert mains to DC at various voltages between 3 and 12. But a battery might have been tidier as well as £10 cheaper.

When you plug everything in and switch on, the Stuffer performs a quick self-test. This verifies its ram chips, microprocessor and circuitry. An extended self-test will even indicate which bank of ram is faulty or indicate a broken wire etc – reassuring.

There are two pushbuttons on the front of Stuffer. Pressing one will cause the last document to be printed again: very useful if you need multiple copies. The second button clears the 64k.

When the Stuffer is operating, a diode flashes to indicate how much buffer space is left. The faster the flash the less space available.

I am impressed by the Microstuffer. It is a simple no-frills add-on that does a fine job. It has useful self-test, multiple copy and buffer-space features. In terms of use it scores highly: its ram can hold data for four entire screen dumps or over 45 pages of text – perhaps two hours' printing – letting you get on with other jobs. The Stuffer is a device all printer owners should consider. *AA*

GOOD NEWS

- 64k of ram for your printer to fill up.
- Works with any Centronics (parallel) printer.
- Sits neatly between computer and printer.
- Self-test function indicates any trouble.
- Repeat button can produce several copies of a document.

BAD NEWS

- External power supply: another wire to dangle.
- The price could be dropped slightly.

Frontier Software ☎ (0423) 67140
PO Box 113, Harrogate, N Yorkshire, HG2 0BE

Professional printing

Smart-looking documents could justify this marginal cost

Taspro 464
Seven Stars Publishing, £7.95 tape, £10.95 disk

There seems to be a current abundance of utility packages aimed at the printer user. No bad thing either: the printer seems to be the first and most popular addition to anyone's computer. Seven Stars, with *Qualitas* (see issue 21) to its credit, has introduced a product that will enable a number of popular word-processors to give proportionally-spaced justified text.

Protext, *Tasword* and many other word-processors make a line of text finish flush against the right margin – that's what "justifying" means – by inserting extra character spaces between words. The trouble is that some spaces on the line will be twice as big as others.

Taspro intercepts data for the printer and inserts equal spaces between all words on the line. "Microspacing" is an often-flung phrase for this padding-out technique. Redefined characters (for instance those formed by printing one characters on top of another) and embedded printer control codes – which select *italics* or **bold** print, for example – are all correctly justified by *Taspro*. Micro-spaced text results in a much neater and more readable document – altogether more professional-looking.

Taspro can be configured to work with virtually any printer. It is ready to run with dot-matrix printers (such as the Amstrad DMP 2000 and Mannesmann MT80) and daisywheel printers (for example, the Quen-Data DWP1120 or Brother HR-15). If your printer does not accept Epson codes, there's still hope: contact Seven Stars, who should be able to help you set up *Taspro* to suit your system. There are two exceptions to this rule: dot-matrix printers that can't produce bit-image graphics and text on the same line or daisywheel printers that can't have their spacing pitch altered in increments of $1/120$ inch.

Using an RSX command supplied by *Taspro*, |COLS, you can set the number of columns. By setting the printing width to greater than the total column width you can switch *Taspro* off. This is handy as *Taspro* increases printing time through extra movement of the print head. If you are using NLQ (near-letter quality) print, use *Taspro* only on the final version of the document. It saves print-head and ribbon wear.

Overall it's a well-presented package with a simple customization program that lets you make the most of your word-processor and printer. *Taspro* is just the thing for producing professional-looking documents at a small price. *AA*

GOOD NEWS

- Microspaced text gives documents a professional touch.
- If your printer can't produce proportional text, let *Taspro* do it.
- Can be used with many word-processors and even more printers.

BAD NEWS

- Your printer must be capable of mixing text and graphics on the same line.
- Printing time increased – slightly.

Seven Stars Publishing ☎ (06284) 3445
34 Squirrel Rise, Marlow, Bucks SL7 3PN

Sharpening an old tool

RpM calls an assembly to pronounce upon an upgraded programming utility

Devpac80 version 2

HiSoft, £39.95 disk only (£15 to upgrade from Version 1)

Devpac80 was one of the earliest and most popular Z80 programming tools for the CPC computer – the workhorse of many a famous software house. It was around at the same time as *Zen* (by Kuma). The main difference between the two was the CPM environment: *Devpac80* needed it, *Zen* did not.

Now two years on, *Devpac80* has sprouted Version 2. Features have been enhanced and new ones added. But is there a place for it with the likes of *Maxam II* at large?

Half the battle is won if the manual is readable – and doesn't assume everyone is fluent at assembly programming. The new *Devpac80* comes packaged in typical HiSoft style: a looseleaf binder with 100-odd pages of instructions. Sections are provided for beginners and more advanced users. It is a pleasure to read: pages are well laid out and cause an occasional giggle – choice phrases such as "cracking a nut with a sponge" and "when silence and the A> prompt rules again...".

The disk contains two versions of *Devpac80*. One side works under CPM 2.2; the other is for CPM Plus. This is a good idea, as all CPC machines can make use of the program. It will even run on Amstrad PCW, Einstein and MSX machines.

Before you start using *Devpac80*, you are advised to make a workdisk. It's not a good idea to copy the whole disk, which is packed tight on both sides: just copy the files you'll frequently use. Along with the assembler, editor and monitor are utility programs that can copy files, delete a number of files, give an extended directory, convert .COM files to .BIN and vice-versa.

Three parts

Devpac is split into three separate parts: the editor where you enter machine-code mnemonics (or opcodes), the assembler that converts source-code (the stuff you typed in at the editor) into object-code, and the monitor that assists in removing bugs from the object- or machine-code.

The editor, with the stimulating title of HDE, can be thought of as a word-processor. It produces text (or Ascii) files. If you've dabbled with *Wordstar* then you'll feel at home: HDE's command keys to move up or down a screenful, save a file, mark beginning and end of block are identical. If you don't already know *Wordstar*, you'll find its choice of keys a pain to use and hard to remember. The prospect of having to use these keys within HDE did not overjoy me. But I was glad to find a comprehensive setup file and altered all the keystrokes to suit my keyboard. A pity not more software is this versatile.

As with *Wordstar*, there is little Devpac's editor cannot do. It offers copying, pasting and deleting blocks, complete cursor control, search-and-replace, insert and overwrite... You can also assemble, run or debug a program from HDE – handy.

Assembling is done in two passes. The first pass checks the syntax and creates a symbol table. If the assembler, GEN80, encounters an error it displays the offending line and continues. The second pass generates the code, but will not occur if an error was found in pass one; instead you will be returned to the editor – unless you instructed otherwise.

There are a number of GEN80 assembler directives. These have no effect on the Z80 processor, but cause certain actions at assembly time:

- `PRINTER` sends the assembly to the printer
- `RELOCATE` lets you produce .REL files which can be linked together
- `DIRECTINPUT` allows you to enter text from the keyboard and have it assembled there and then
- `MACRO`s are supported
- `IF` and `ELSE` allows conditional assembly
- `ZZZZZ` is my favourite. It puts the computer to sleep until a key is pressed.

Promon, the debugger that makes up the third part of Devpac, can be customized in a similar fashion to HDE. Its main function is to help you rid your program of errors. It contains a dissassembler, memory editor and monitor.

Commands come in batches: memory commands which let you compare areas of memory, fill locations with any value or simply view and edit parts of it. Then there are search commands with which you can look for a byte or string and a powerful search-mnemonic command – it lets you enter `LD A, (HL)` and if the bytes corresponding to this are found, the locations are displayed.

Battle of the giants

You have two competent programming utilities, but which do you go for?

In its favour, Arnor's *Maxam II* has a superb editor and is easy to use. Against: the £80 price is excessive (presumably to compensate for high production costs) and the manual does not cover topics in enough detail. It also requires 128k and CPM Plus.

The original *Devpac80* cost £40 – Version 2 is the same price. The manual is compulsive reading: it teaches and is witty. *Devpac* can work under CPM 2.2, which means 464 and 664 owners are not left in the lurch. However, much setting up is required to tune the system to your taste.

If you own one of the earlier CPC machines and intend to create programs that will work under either CPM or the Amstrad's native operating system then I'd plump for *Devpac*. If, on the other hand, your budget can stretch and you intend to produce CPM files then *Maxam II* is probably the wiser choice.

Slowing it down

It is possible to execute a machine-code program slowly, step-by-step or by using breakpoints. These are inserted into your code and when reached return control to Promon. A very full set of breakpoint options are allowed: hard, conditional, watchpoints (let you execute a patch of code a certain number of times – especially useful for loop-testing).

There are many nice touches within *Devpac* – more than I can list in a page. Being able to produce .REL means the output from other languages such as CBASIC, ProPascal, ProFortran and all Microsoft languages can be linked. The assembler's output can be used by other debuggers (namely those from Microsoft and Digital Research). All the CPC memory is exposed and free for you to play with if you have *Devpac*. It is a complete programming tool. And it scores over its rivals by being cheaper, having better documentation and being more geared towards the CPC market. It's a package I wouldn't hesitate to recommend. **AA**

HiSoft ☎ (0525) 71 8181
The Old School, Greenfield, Bedford, MK45 5DE

GOOD NEWS	BAD NEWS
■ Manual is excellent for both novice and old hack. ■ Half the price of *Maxam II*. ■ Works under CPM 2.2 as well as CPM Plus.	■ A lot of setting up is required.

 Pop, pop, pop the stack


ZYNAPS
ZYNAPS; the most imaginative sci-fi shoot-em-up game yet, from Hewson. It has a combination of 140 possible story sequences to fire your imagination. Zynaps is a game constructed like a comic book, with three chapters and four episodes of mind-blowing action. Each part gets tougher until our hero faces the final conflict. It's the battle to end all battles!
SPECTRUM • AMSTRAD • COMMODORE
Cassette £7.95
Cassette £8.95
Disc £14.95
Cassette £8.95
Disc £12.95
HEWSON
Hewson, 56b Milton Trading Estate, Abingdon, Oxon OX14 RX.
Hewson Consultants Ltd
As part of our continuing development of innovative software we are always happy to evaluate software sent to us with a view to publication





256K SILICON DISC



This is the fastest storage system available for Amstrad CPC computers and is compatible with CPM 2.2, CPM+ and all DK'Tronics peripherals including the 64K/256K memory expansions. When used with CPM+ and our 256K memory the edition disc capacity is a massive 442K (more than the PCW 8512 Ram Disc). It automatically logs on as drive B or drive C in two drive systems and does not require extra power supply.

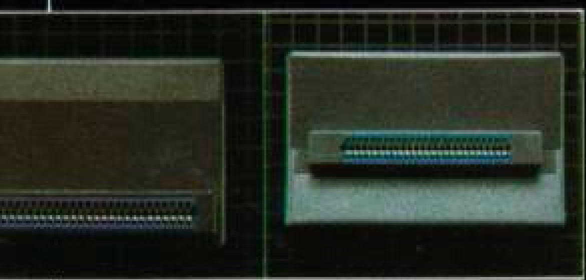
The 256K Silicon Disc is designed to be used with at least one normal disc drive attached. When fitted the directory uses 2K thus leaving 254K for storage, over 70K more than the normal discs.

Data and programs can be exchanged between the Silicon Disc and a normal disc, application programs can then work on the data at vastly increased speed especially on systems with only one normal drive.

Software is contained in an expansion ROM and there are two environments in which the Silicon Disc can be used, BASIC under AMSDOS where all the normal AMSDOS commands are fully supported LOAD, SAVE, MERGE, CAT etc and within CP/M 2.2 CP/M+ where commercial programs are designed to run on multi drive systems.

£75.00 including VAT (464 and 6128)

64K and 256K MEMORY EXPANSIONS



The memory expansions increase the Amstrad 464's internal memory to give a total of 128K or 320K. The 6128's memory is increased to 320K. It is compatible with all DK'Tronics peripherals including the 256K Silicon Disc.

It is supplied with bank switching RSX software (464 software on cassette 6128 on disc.

The software adds some BASIC commands which makes it possible to use the second 64K (or 3rd or 4th and 5th in the case of 256K) for storage of screens, windows, graphics and basic arrays. This ability means that you can write much larger basic programs and sophisticated programs that use pull-down menus with ease.

With an expansion fitted on the 464 it then has the same memory configuration as the CPC 6128. It will then run CPM+ with its massive 61K T.P.A. area, opening up an even larger software base to 464 users. When using either of the expansions with CPM 2.2 on the 464 and 6128 computer the T.P.A. is increased to 58K.

The RAM is accessed by means of bank switching using a single I/O port. Memory is actually switched in and out of the 64KZ80 address space in 16K sub blocks (as are the ROMS). The port determines which particular combinations of the original four 16K sub blocks and any new sub blocks from the expansion RAM will occupy the 64K address space at any time. All of this switching is done automatically by the software supplied.

The contents of the expansion RAM are retained if the computer is reset and if the RAM is used for machine code the contents will remain even if the computer crashes.

64K **£39.95** including VAT (464 only)
256K **£75.00** including VAT (464 and 6128)

REAL TIME CPC'S

Just released, a real time clock for the CPC range of Amstrad computers. It will maintain the time of day with seconds, minutes and a 12-24 hour format, a calendar with the day of the week, date, month and year

There is an automatic end of the month recognition and automatic leap year compensation. An alarm facility can also be set from once per second to once per day.

The module is battery backed so that the time is maintained after the computer's power is switched off. This is via a rechargeable Nicad Battery. The battery is automatically recharged whenever the computer is used, and the interface is fitted. It also contains 50 bytes of battery backed RAM for storing of important data etc.



L·E·A·D FROM B

DK'Tronics have produced this range of powerful pe
and 6128 Amstrad Computers and have been desi

64K SILICON DISC



The 64K Silicon Disc has all the features of the 256K version with the exception of the size RAM memory available. This is 62K with 2K for the directory. It uses the second bank of 64K in in the 6128 or the DKT 64 memory on the 464 and configures this as a silicon RAM disc

It cannot be used with CPM+ as this is already used in the second bank

£29.95 including VAT (464 and 6128)

● It is supplied with RSX software which transparently updates CPM's own software clock therefore also maintaining a very accurate CPM software clock. The module can be used for date stamping of CPM+ discs, and any applications which require periodic Real Time Control.
● There is a Programmable Periodic Interrupt Generator with three types of interrupts which are separate software maskable and testable, time of day alarm once per second to once per day, Periodic rates from 122 MS to 500 MS and end of clock update cycle. To enable the user to use these interrupts to control applications in the real world it is also fitted with an 8 bit input/output port. The input/output port can also be used on its own or in conjunction with the Real Time Clock.
● The interface has a through connector to allow other peripherals to be connected at the same time.

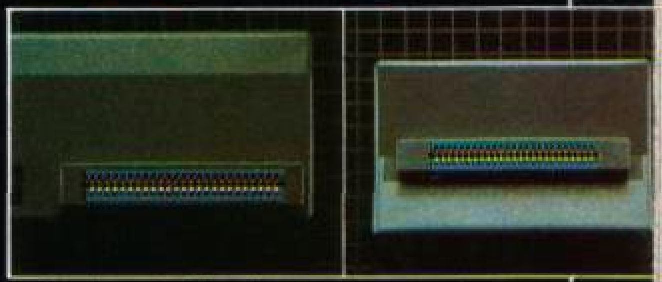
£34.95 including VAT (464 and 6128)



·I·N·G
EHIND

peripherals to enlarge the potential of the 464
designed to compliment their style and colour.

GRAPHICS LIGHT PEN



- The sophisticated graphics package includes a colour palette, nudge control for one pixel accuracy, brush choice, text handling and user defined characters.
- It can magnify, shrink, colour fill and create circles, rectangles, lines and curves.
- Complex pctures can be easily edited at pixel level using a scratch pad which is magnified to the full screen.
- There is picture storage and retrieval, and a pen callibration utility and there is also an Amstrad/Epson compatible printer dump utility supplied on cassette.
- There is a cassette version for the 464 and a ROM version for the 464 and 6128.

Cassette **£19.95** including VAT (464 only)
ROM **£29.95** including VAT (464 and 6128)

SPEECH SYNTHESISER



- This simple to use speech synthesiser includes a powerful stereo amplifier and two high quality speakers which greatly improves the sound quality of the internal mono speaker.
- It uses the popular SPO/256 speech chip and has an almost infinite vocabulary.
- It is supplied with a text to speech converter software for ease of speech output creation. Everything you wish to be spoken is entered in normal english without special control codes or characters making it extremely easy to use.
- The voicing of the words is completely user transparent and the computer can carry on its normal running of a program whilst the chip is talking. The speech output from the SPO/256 is mono and directed to both speakers.
- There is a cassette version for the 464 and a ROM version for both the 464 and 6128.

Cassette **£29.95** including VAT (464 only)
ROM **£39.95** including VAT (464 and 6128)

HOW TO ORDER

DK'Tronics products are available in all good computer stores but may be obtained by completing the order form below and returning it to DK'Tronics or by telephoning and quoting your Barclaycard or Access number.

Orders are normally despatched within 24 hours and if you have any further queries concerning our products do not hesitate to give us a ring or send us a large stamped addressed envelope for our latest free 84 page technical manual covering our Amstrad product range.

Please send me ____________________

Name ____________ Signed ____________

Address ____________________

I enclose Cheque/PO/Cash for:- Total ____________

or debit my Barclaycard/Access number ____________

dk'tronics
POWER BEHIND YOUR AMSTRAD

DK'Tronics Limited
Gorleston, Great Yarmouth, Norfolk NR31 6BE.
Phone 0493 602926 (24 hours), Telex 975408.

4,000 Soviet Nuclear Warheads
are targetted at the North American Mainland.
The only hope in a nuclear conflict
would be the...

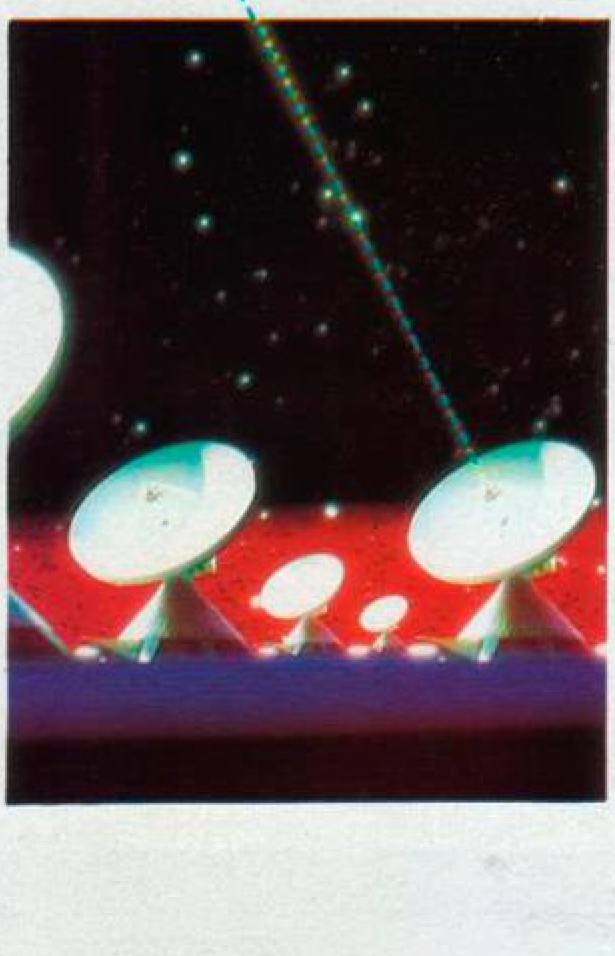
HIGH FRONTIER

An SDI Wargame

The ultimate deterrant...
or an unworkable provocation?

The most controversial defence policy this decade, known variously as SDI, Star Wars or Reagan's Ray Guns, the Strategic Defence Initiative is either hailed as mankinds salvation or damned as an unworkable provocation. In HIGH FRONTIER you are the project leader commiting staff and funds to make SDI a reality. You deploy the satellite defence system as the world teeters on the brink of nuclear oblivion, and you must make the decisions that could save the American mainland...or devastate it.

A joystick-controlled, icon driven strategic simulation that's hopefully as near as you'll ever get to the real thing...or is it?



Designed by **Alan Steel,**
developed in collaboration
with **Ian Bird.**

ACTIVISION
ENTERTAINMENT SOFTWARE

Amstrad CPC cassette (£9.99) and disk (£14.99)
Commodore 64/128 cassette (£9.99) and disk (£14.99)
and ZX Spectrum 48K/128K/+ (£9.99)

Mail order: Activision (UK) Ltd., 23 Pond Street, Hampstead, London NW3 2PN. Tel: 01 431 1101

ACTION TEST

MASTERGAME



RAVES

GAMES TESTED

Mag-ic Max

Having stressed the importance of originality last month, for Mastergame this time around we choose a good old-fashioned shoot-em-up. It brings to light another problem: how original is the conversion of an arcade game?

If it mimics the arcade version exactly should it be considered unoriginal? I don't think so because you can't presume that people have seen a game in the arcades or on another computer. What matters is whether it's new to the CPCs or not and how well it compares to other CPC games.



Mag Max is a good example. Although it's been in the arcades and on other machines for some time, there still isn't much similar to it on the CPCs. It isn't very original but has all the elements a classic shoot-em-up needs.

Barbarian can't claim to have much in the originality department either, but it's the best combat game yet. As well as great fight action it has humour and gruesome graphics. There are a couple of crackers from Mastertronic, notably the conclusion of the Magic Knight games, *Stormbringer*. If you want your world turned upside-down then *Triaxos* can oblige with antigravity puzzling and *Thing Strikes Back* with topsy-turvy bouncing.





BARBARIAN

Palace, £9.99 cass, £12.99 disk, joystick or keys

The advertising was sexist and it's yet another combat game, but surprisingly enough there's a lot of class about it. It's nearly two years since *Way of the Exploding Fist* started off the constant stream of combat games and it's possible that this could revive the genre.

The concept is simple enough and hasn't changed since *Fist*. Two guys fight it out in 2D until one of them gets hit enough times. In this fight the combatants are armed with swords and you've got to battle to release a fair princess (yawn). There are three forms of fight: one player against the computer in practice, one player against the computer for real, and two players.

There are two different backgrounds for the practice fighting and two for the real thing. You can only play with two players in the practice mode, where the rules are also different. The four backgrounds are all superbly drawn and detailed, adding a nice atmospheric touch.

The fighters are all the same muscle-bound warriors but with varying flesh hues and different-coloured jerkins. They are stunningly animated through 16 possible moves with many intervening frames. The moves are split into two types: movement without the Fire button pressed and attacking strokes with the button pressed.

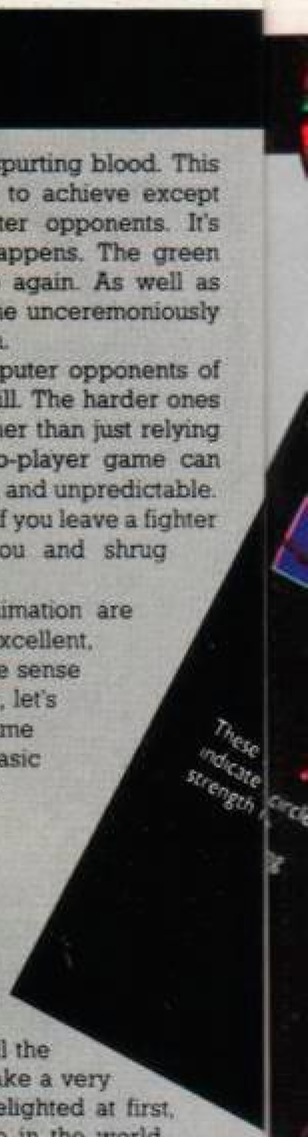
The more defensive movement commands include forward and backward rolls, crouching, jumping and protecting the head and body with the sword. The attacks are very varied including a head-butt, web of death (spinning sword) and overhead chop.

Whenever an attack contacts the opponent a red flash indicates the hit. This will reduce the strength of the opponent – it starts off at six and is reduced by a half for every hit. When no strength is left the fighter will collapse and get dragged off scre en by a little green monster looking like a cross between a toad and ET.

There is an even more spectacular way to dispatch opponents, which is not for the faint-hearted. If you succesfully time a flying neck chop it will end the fight immediately: your opponent's head flies into the air and his torso flops to the ground spurting blood. This gruesome sight isn't easy to achieve except against the early computer opponents. It's really hilarious when it happens. The green monster will appear once again. As well as dragging away the body he unceremoniously boots the bonce off screen.

There are seven computer opponents of increasing cunning and skill. The harder ones require a lot of moves rather than just relying on two or three. The two-player game can obviously be a lot more fun and unpredictable. Each bout has a time limit. If you leave a fighter unmoved he'll turn to you and shrug his shoulders.

The graphics and animation are unsurpassed, the music excellent, the action difficult, and the sense of humour great. However, let's face it: it's a combat game pure and simple. The basic concept and action hasn't changed at all since the days of *Fist*, and I find it hard to get excited about the format. What the game has going for it is that it combines the graphics, animation, speed and gameplay of all the other combat games to make a very playable one. You'll be delighted at first, but with all the tarting-up in the world you can't disguise the basic gameplay. **BW**



The Verdict

GRAPHICS 94%
- ☐ 4 detailed, atmospheric backdrops.
- ☐ Fantastically animated characters.

SONICS 81%
- ☐ Pleasant tune plays throughout the action.

GRAB FACTOR 90%
- ☐ Delightful touches of humour.
- ☐ Instantly playable with fast actions.

STAYING POWER 83%
- ☐ Computer is tough and two players is always fun.
- ■ Still basically a combat game – a strong limiting factor.

AA RATING 87%
- ☐ The best of the combat games.

FIRST-DAY TARGET SCORE
Defeat 3 computer fighters

TRIAXOS

39 Steps/Ariolasoft, £8.99 cass, £14.99 disk, joystick or keys

Triaxos translates as "three axes", this game takes place in a 4×4×4 cube where it's easy to get disoriented. There are 64 rooms in a 4×4×4 cube. But the game has a possible 192 locations, for each room has three faces which can be used. This seemingly confusing state of affairs is at the heart of the game and will need plenty of thought and mapping.

The cube is a prison in which you have to locate a prisoner and get him out alive. The cube is also populated by deadly robot guards and other devious defences to stop you.

Rooms are plain and empty, showing only relevant features. What you'll encounter most are doorways and robots. There are two robots on each room face. There are five levels of robot type that take the corresponding number of hits from your gun to destroy. Robots of level 2 and higher will also pursue you from adjacent rooms.

As well as your gun, which has limited ammunition, you can carry grenades and high explosives. The high explosives are particularly useful: you can use them to blow holes in the floor, which after a quick re-orientation become doors. Other objects include a jet pack, key and spacesuit, which will be needed to complete your escape.

You can move through doors and drop through holes in the floor – as long as you don't drop through two floors, that is. To re-orient so that you're effectively walking on a wall, you need to find a face-lift. These are ovals in the middle of some rooms and transport you to the middle of one of the walls.

The Verdict

GRAPHICS 68%
- ☐ Some nice sprites and explosions.
- ■ Most rooms are plain.

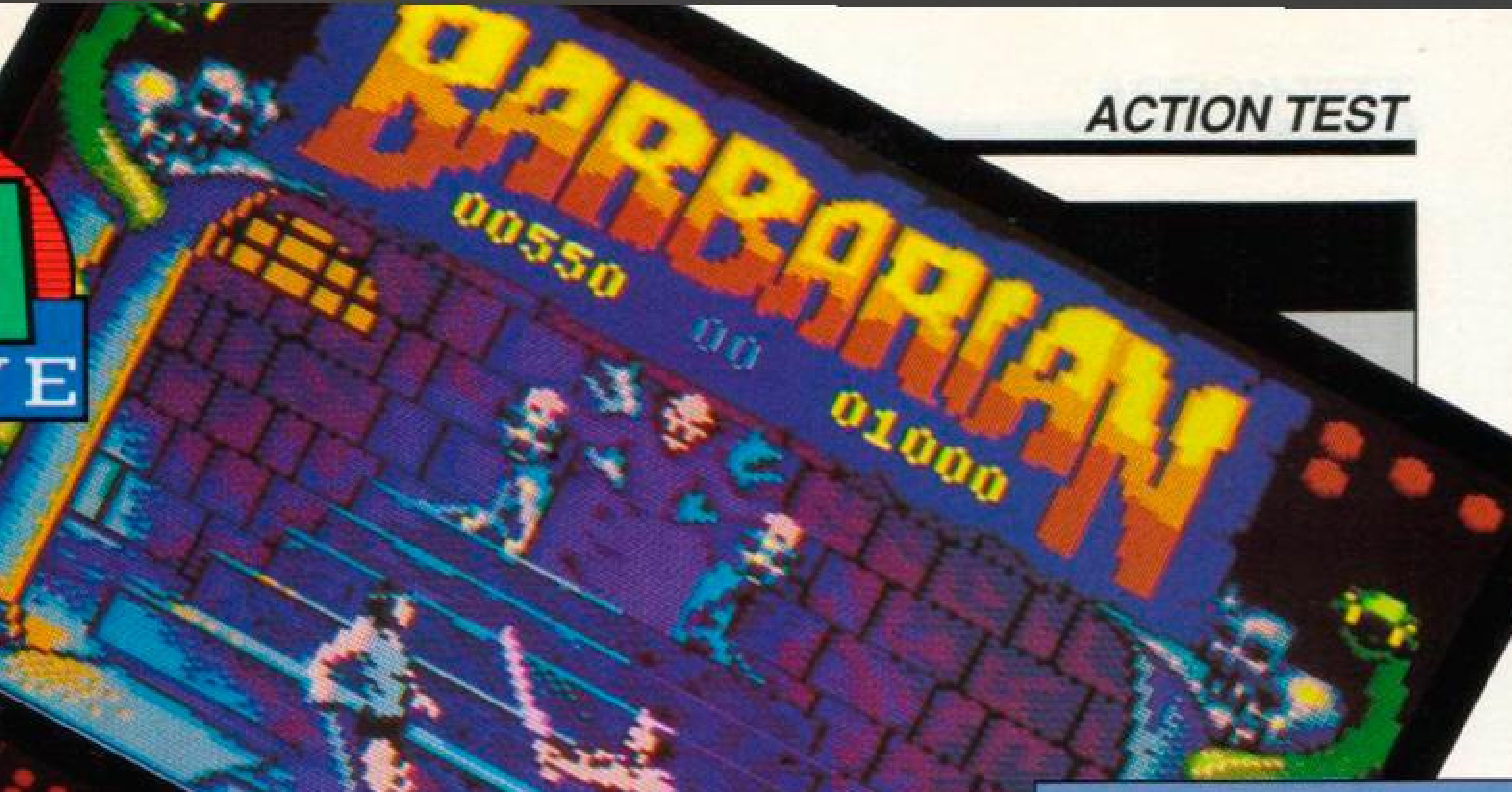
SONICS 64%
- ☐ Good title tune.
- ■ Effects are limited.

GRAB FACTOR 84%
- ☐ Love the 3D cube idea and its effects on orientation.
- ■ A bit uneventful and confusing at first.

STAYING POWER 86%
- ☐ Requires lots of thought and planning.
- ☐ Plenty to explore, map and discover.

AA RATING 84%
- ☐ An interesting new twist in a game that will really hook you.

 Bar-bar-bar...





Drax looks down on the arena where the bloody battles take place.
Whoops-a-daisy, don't lose your head.
Make sure you clean up after this fight: one warrior falls to a flying neck chop

SECOND OPINION

I think this is once of the best-presented games this year. The graphics (colourful and detailed) are superb, animation is flicker-free and fast (unlike previous combat games), sound is scintillating and effects satisfying. It's a thrill to play the game: the action is furious and addictive.

Little touches spruce up the overall effect: four background scenes, snake heads that move when a player is hit, an ET lookalike that drags corpses off the battlefield and a great scene where either your head or your opponent's head gets cut-off.

A wonderful game that deserves to be played. **RpM**

GREEN SCREEN VIEW

Couldn't be clearer.

You will still see yourself the right way up, but all the doors and holes will have moved.

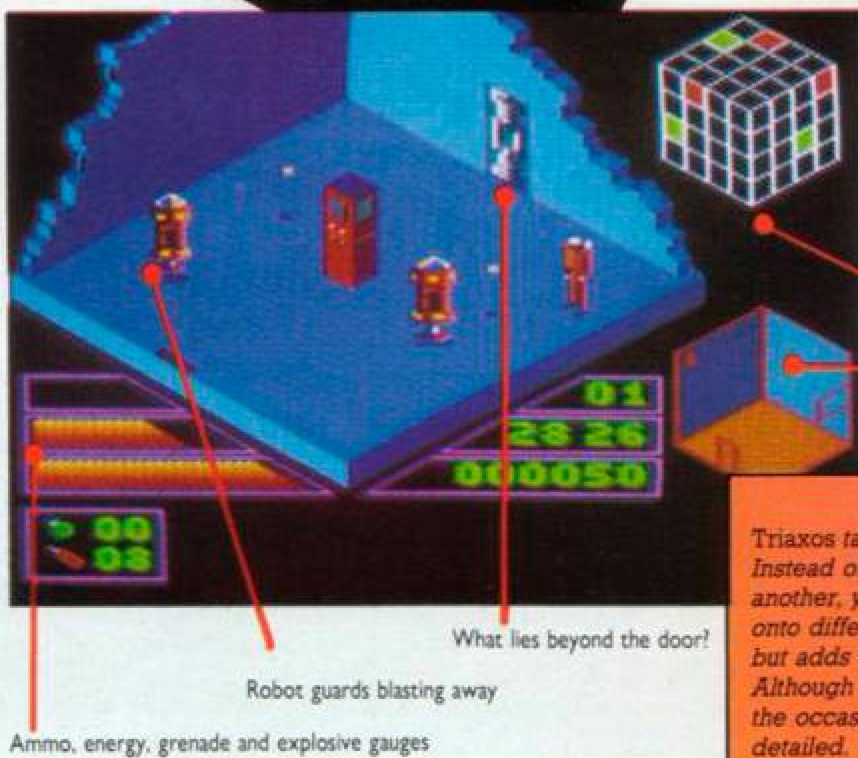
This concept takes a bit of getting used to, but in practice it's okay as long as you remember which wall you're on and where you're headed. Mapping will be crucial to eventual success: you've got limited explosives with which to blow open holes. However, any map you can draw is also bound to be awkward, because it will need to be three-dimensional as well.

Rooms contain other structures that may come in handy. There's an energy restorer, an ammo replenisher and a cloning booth where you can create an extra life. However there are also nasty alien rooms where barriers criss-cross the floor and deplete your energy if you get trapped by them.

Although it's fairly simple in concept and not much to look at, the addiction and challenge lie in the mental dexterity that has to be used to cope with the 3D cube and its properties. You can't just rush around hoping you'll come across something; you've got to work out where you're going and how. Combine this, hordes of robot guards and a 30-minute deadline to rescue the prisoner, and you've got an excellent game. **BW**

FIRST-DAY TARGET SCORE

10%



The cube prison showing your location

This shows the three sides of the room and the doorways revealed

What lies beyond the door?

Robot guards blasting away

Ammo, energy, grenade and explosive gauges

SECOND OPINION

Triaxos takes 3D games one step further. Instead of just moving from one room to another, you can also move up and down onto different planes. Can be confusing, but adds a twist to existing puzzles. Although the rooms are generally bare, the occasional robot or other object is detailed. **RpM**

GREEN SCREEN VIEW

Okay.

barbarian beach boy



MAG MAX

Imagine, £8.95 cass, £14.95 disk, joystick or keys

Great games come in many forms. Although I've criticised shoot-em-ups in the past as repetitive and predictable, when they're done well they are wildly addictive. Classy shoot-em-ups have more action than a singles bar and this one guarantees you a severe case of Knackerus Fingeroid Firitis.

All this will be music to the ears of anyone who's been waiting for the game. It has taken quite a while to convert. I can't attest to its authenticity in terms of the arcade version, but I can tell you it's a great game. The scenario, thankfully short, tells you the human race has met its ultimate end, leaving just a robot to battle the alien invaders.

The robot is in pieces: one of them is under your control; the others you have to find. You have to progress through scrolling levels of mayhem, both above and below ground, against an ever increasing number of aliens.

The game is split into levels, each one having both above- and below-ground sections. You can get between them using craters, so that you can travel through whichever one you find easier to deal with. In both cases the screen scrolls from right to left, but the perspectives are different.



Up top you're given a 3D view

Crater to take you underground

Above ground you have a 3D view with the ship skimming over the surface. In the caverns this switches to a 2D view. In both instances the ship can move freely about the screen, but can't stop the steady scrolling that reveals the enemy forces.

As you make your way across the screens you can find the bits of the robot which will give him additional firepower and a new weapon. However, hanging on to these for long can be a problem. The first add-on module looks like a teddy bear and provides the upper half of the body. When the legs are added it gives you a wider field of fire – but also a bigger target for the aliens. A lance can also be added to the body section to destroy otherwise indestructible objects.

The surface aliens come in all sorts of shapes and behaviour patterns. Some are static and blast away at you; others dodge around trying to zap you. Different types of each are revealed as you get further through the game. If you run into them or their bullets you will lose a piece of the robot. When there are no pieces to lose a life will go down the swannee.

Underground the aliens all fly and move in patterns. Like the surface ones they tend to come in waves. All the bullets are aimed at your current location when fired, so you have to be constantly on the move around screen to avoid their deadly accuracy. Your own firepower also needs to be accurately directed. You can only shoot straight out from the ship to the right of the screen.

At the end of the level you are supposed to run into a dragon that has to be shot bit by bit. But I didn't notice one – just more and more waves of aliens. The background graphics change between levels, and of course the aliens get meaner and more plentiful.

What with constant moving, no auto-repeat on the Fire button, hordes of the enemy and needing a high degree of accuracy, this is a testing shoot-em-up indeed. Fortunately the aliens do appear in the same formations every game so that you can learn the patterns and progress further. There are also regular

SECOND OPINION

This game is enjoyable, highly playable and guaranteed to give you a sore finger or two at the end of the day. It's good to see some effort being put into a shoot-em-up – Imagine deserves a pat on the back. Fast, colourful and addictive as all shoot-em-ups should be. **RpM**

GREEN SCREEN VIEW

There's no escaping them in green.

Mag mad about...

MASTER GAME

Aliens all fly and shoot accurate bullets



The ship gets larger and more powerful as pieces are added on

A 2D view of the cavern

Crater to return you to the surface



"restart" spots where you will begin after losing a life.

The graphics are detailed, colourful and varied. Combined with a reasonably smooth, slow scroll, it makes an excellent game to look at. The gameplay is demanding but very addictive. The crucial aspect is that of variety: there are so many different aliens and attack patterns, a 3D and 2D view, weapons and parts to collect, different levels to move on to.

This is the sort of game that rewards hard work. The longer you play it the better you'll get. You'll certainly come away with a much fitter fire finger and a throbbing hand, a sure sign of a good shoot-em-up. It will take you to your gameplaying limit and still keep you hooked. **BW**

FIRST-DAY TARGET SCORE
50,000



These blocks can be removed only with the lance

Fly into this to gain a body part

The Verdict

GRAPHICS 83%
- ☐ Reasonably smooth, slow scrolling.
- ☐ Lots of different, colourful alien sprites.

SONICS 42%
- ■ Title tune plays only once.
- ■ Just zapping effects in the game.

GRAB FACTOR 90%
- ☐ Instantly tough and addictive.
- ☐ Can make progress as you learn the attack patterns.

STAYING POWER 89%
- ☐ Lots of variety in the aliens and stages keeps things interesting.
- ■ Guaranteed to wreck your hand.

AA RATING 89%
- ☐ Shoot-em-up fans looking for a challenge will love this one.

STORMBRINGER

Mastertronic, £2.99 cass, joystick or keys

There's not much left to be said about the brilliant series of games starring Magic Knight. He first came to light in *Finders Keepers* but really achieved stardom in *Spellbound* and *Knight Tyme* with the introduction of the "Windimation" system of window menus. The last in the series once more uses the same system to good effect.

Having clanked around in the 25th century in *Knight Tyme*, Magic Knight has travelled back to his own time. However, on the way he's been split into two, leaving you as the good Magic Knight and the Off-White Knight, your dark side. Your task is to merge the two halves of MK to prevent the Off-White Knight, nicknamed Stormbringer, from wreaking havoc in the land.

SECOND OPINION

The final Magic Knight game is not a letdown: the graphics are still highly detailed (though still lack colour), the innovative window system remains, but the task is much harder. Guaranteed satisfaction for months. **RpM**

GREEN SCREEN VIEW

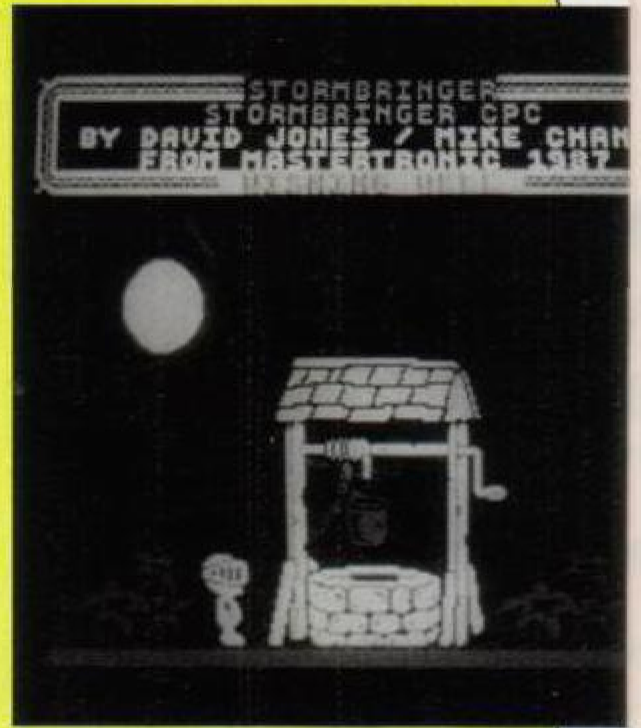
No problem.

If you've already played the previous games in the series you'll be right at home with this one. It features the same interaction between characters, Windimation and weird humour. However, don't expect that to make it any easier because the puzzles David Jones has concocted are more devious than ever. *[See David Jones interview in AA 19. -Ed.]*

If you're unfamiliar with Windimation here's how it works. The Fire button is used to call up a window menu from which all the other menus can be accessed. This main menu contains five standard commands: pick up an object, drop an object, take object (from character), give object and examine. It can also feature a number of additional commands depending on what objects you are carrying. These allow you to cast spells, read objects, command characters, wear things, smell, drink and throw things.

Most of these main commands will produce submenus that contain either information or a further list of choices. For instance if you want to examine something you have to decide whether it's an object, character or yourself, which object or character, and finally see the information relating to your choice. All this information flicks up on a new window and is superbly presented.

There are other characters in the game who move around independently of you. You can give them objects or take them, depending on whether the character is co-operative. You've also got to look after their welfare and can request help from them if you think there's a task they can perform which you can't.



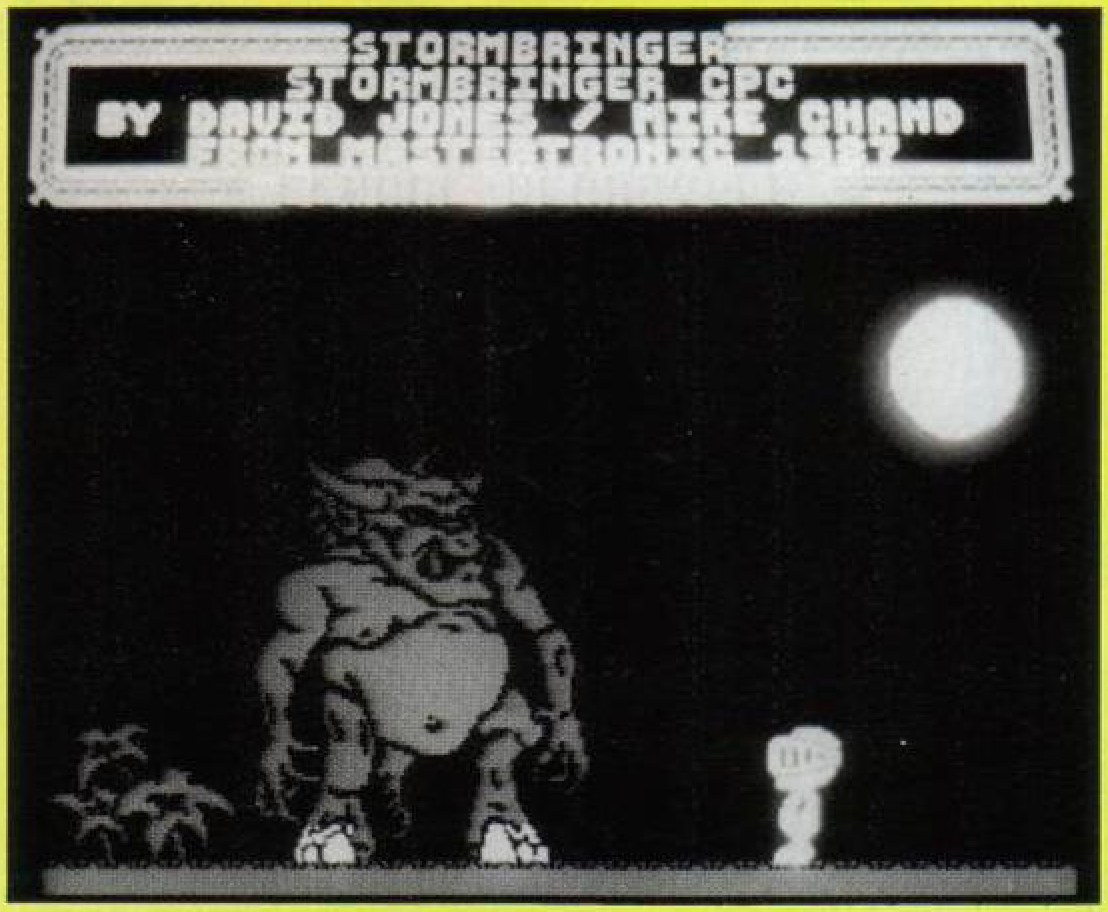
Watch out for Grunter the Bearwoolf, who's an enormous, mean-looking monster and can end the game with one swipe. Another deadly problem is a cloud that floats around, produced by the Strombringer: it will zap you with lightning if you stand around too long.

There are no significant improvements in this latest MK adventure, but then, quite frankly, it didn't need any. Fans of his previous games will be deliriously happy with the new puzzles, characters and humour, while newcomers to the series will probably rush out and buy the previous games as well.

The graphics and animation are once again, adequate and a pleasant in-game tune is provided. As ever you don't just get a tune, though, you have to pick up and wear a personal stereo in order to hear it – cute, huh? I'm still full of admiration for this series of arcade adventures and it's fitting that they should exit on this high note. **BW**

FIRST-DAY TARGET SCORE

10%



Grunter the Bearwoolf looks mean and ugly

The Verdict

GRAPHICS 65%
- ☐ Some detailed backgrounds and characters.
- ■ Generally poor use of colour.

SONICS 70%
- ☐ Cute tune from personal stereo.

GRAB FACTOR 86%
- ☐ Still got a great sense of humour.
- ☐ Windimation is as enjoyable as ever.

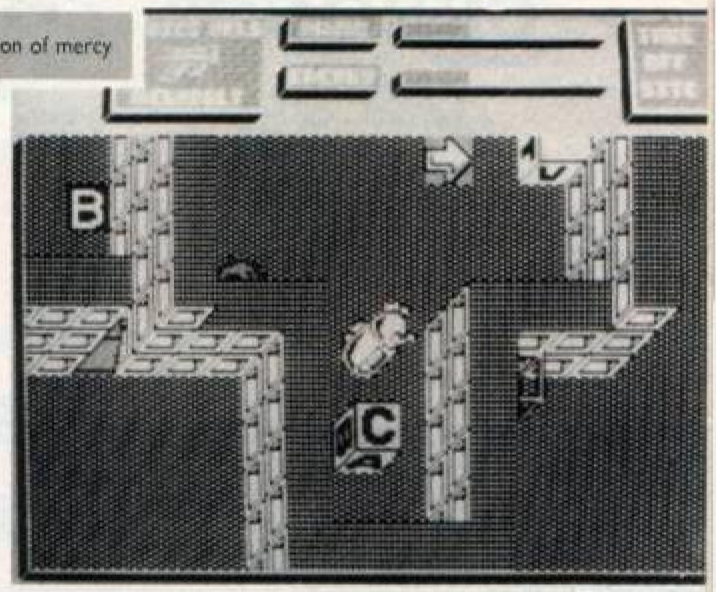
STAYING POWER 89%
- ☐ Just as tough as, if not tougher than, predecessors.
- ☐ The puzzles are superbly worked out.

AA RATING 88%
- ☐ Hard to believe this is a budget game – brilliant.



THE FINAL MATRIX

Gremlin, £9.99 cass, £14.99 disk, joystick or keys



Biopton Nimrod on his mission of mercy

Nimrod's the name of the new character from Gremlin, and if Gremlin follows past patterns you can expect to see him pop up in more games. Nimrod is a Biopton – a mechanical lifeform – who has to rescue other Bioptons from the clutches of the Cratons. This means he has to enter the Matrix and find the hostage in each of the Matrix locations.

> **SECOND OPINION**
>
> *Enter Nimrod, Gremlin's new character – not as cute as those who have gone before, but guaranteed to help you out of sticky situations. Matrix is tough to play – there are so many dangers early on that it takes a strong will to continue playing.*
>
> **RpM**
>
> **GREEN SCREEN VIEW**
>
> *All visible.*

You can choose which location to land in and beam Nimrod down to it. Each location is a maze of rooms, corridors and walls that cover several screens. They're in 3D and you see them from an unusual overhead angle. They're quite detailed, like most of the characters that inhabit them, but lack colour and variety.

Finding each of the hostages isn't easy. Getting them out is even tougher. You're armed with one of four devices: three types of weapon and a thrustpak. The thrustpak allows you to fly over things but has limited fuel and can't be used by the hostage for a return journey. The weapons, in increasing order of strength, are a lazatron, megatron and megabolt.

The weapons come with limited ammo but the stronger ones are useful for dealing with Craton guards. It will take a number of hits with any of the weapons to destroy a guard robot. Even a megabolt uses up half a clip.

The robots have different effects. Some will shoot at you, weakening your strength; others just try to push you around. Worst of all are the mines, which are instantly fatal if you bump them. There are also squares on the floor which can sap energy or bounce you about.

Things aren't all bad. There are refuelling squares, TV monitors that let you study a map of the location, bounce lifts to take you up steps and other handy construction blocks. This is where the puzzle element of the game comes in, particularly when you've found a hostage.

Hostages will follow you around, but guiding them up steps and over other obstacles isn't easy. You've got to make it back to your start square to lift off back to your ship. All the hostages have to be rescued within a time limit – tough.

It's a nice idea for a puzzle/arcade game, and it's quite well carried off. My reservation is that it's rather difficult to get into and not too rewarding of good efforts. However, it will present an excellent long-term challenge. **BW**

FIRST-DAY TARGET SCORE
Rescue one hostage

The Verdict

GRAPHICS 68%
☐ Detailed, 3D locations and characters.
■ Poor use of colour.

SONICS 45%
■ No music just a few effects.

GRAB FACTOR 65%
☐ Good features like various floor pads.
■ Difficult to get into.

STAYING POWER 74%
☐ Excellent mixture of action and puzzles.
☐ Many locations and all tough.

AA RATING 68%
☐ Could be an excellent new series.

ENTERPRISE

Melbourne House, £8.95 cass, £14.95 disk, joystick and keys or keys

Here we have two ripped-off ideas in one game. The title is obviously trying to steal *Star Trek's* thunder, while the game is an unmistakable *Elite* derivative. Trying to match a game of *Elite's* calibre is brave. If you succeed you'll have a number-one hit, but if you fail you'll get heavily criticised for producing a rip-off.

You're promised 5.2 billion planets to visit, which is all very well but they're practically all the same. You begin the game orbiting one of them. You can enter the atmosphere to land. Alternatively you can accelerate off into space or hyperspace to another planet.

Before landing on a planet you need to get some cargo to trade with. This seems to float randomly about in space, and you collect it just by flying near. The only other thing you'll encounter is police ships. There's no laser or shoot-em-up element which will disappoint many *Elite* fans.

> **SECOND OPINION**
>
> *There are millions of planets to explore. However, they all seem very similar. The graphics are good, the alien face hilarious to watch – and his blabberings are even better. But there's not enough originality to make it a winner.* **RpM**
>
> **GREEN SCREEN VIEW**
>
> *Clear.*

When touching down on a planet you have to fly the ship onto a landing strip, just like an ordinary flight simulator. On the ground the trading begins. An alien appears and starts rabbiting away. You have to try to sweettalk him and then transact money-making deals on your cargo.

Services are available on the planets for repairing and refuelling the ship. For the most part the inhabitants are unhelpful and uninformative, sometimes making no sense whatever.

The Verdict

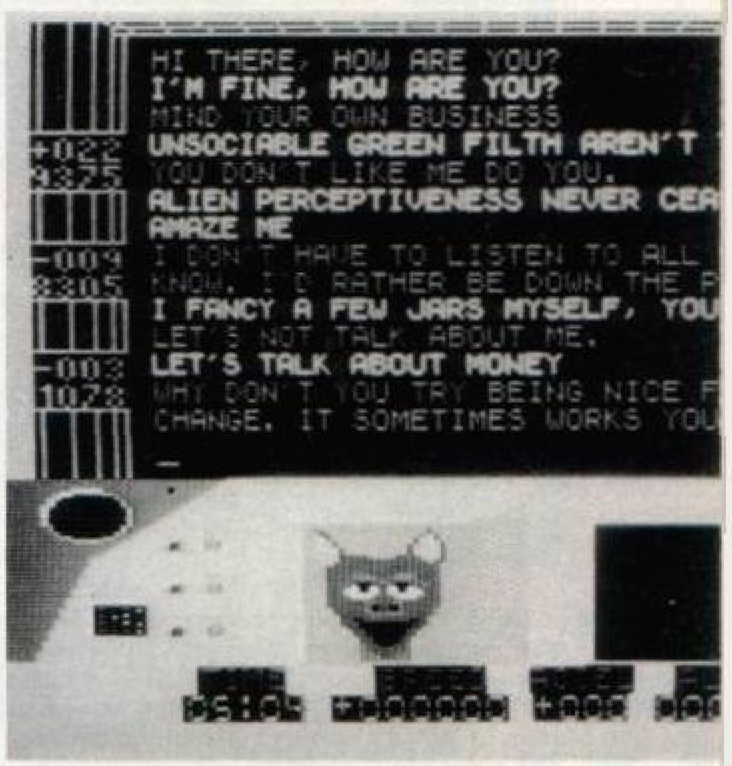
GRAPHICS 59%
☐ Nicely animated alien face.
☐ Good spinning cargo in space.

SONICS 29%
■ Intensely annoying continuous beeping.

GRAB FACTOR 64%
☐ Conversations will interest you.
■ Hard getting anything done at first.

STAYING POWER 54%
☐ 5.2 billion planets to visit.
■ You'll have seen it all after two.

AA RATING 57%
■ Nice idea but rapidly becomes boring.



I quite liked the game but it's too rough around the edges to be particularly enjoyable. The conversations don't develop enough for them to be worth including: you need either a lot more complication or a more structured procedure to follow. I found it all got quickly repetitive and lacked anything to get your adrenalin going. **BW**

FIRST-DAY TARGET SCORE
Find and trade cargo

CHRONOS

Mastertronic, £1.99 cass, joystick or keys

Shoot-em-ups seem to be flavour of the month. This one's of the right-to-left scrolling variety. It's composed of six progressively more difficult stages and an awful lot of aliens to convert into particle-incinerated space dust.

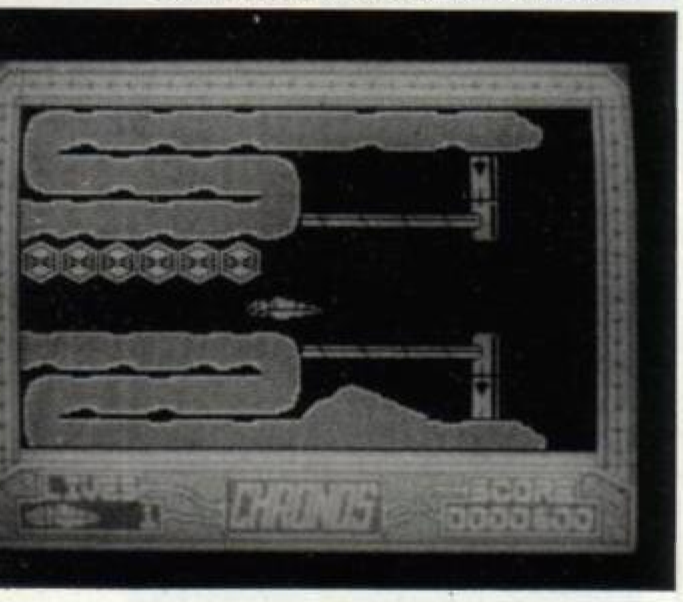
Your ship appears on the left of the screen but can fly most of the way across to the right. However, you'll want as much warning as possible of oncoming hazards, so most of your time will be spent on the left. As you fly sedately through the zones you'll encounter many alien buildings, floating platforms and caverns, all of which are quite detailed but composed of just one colour.

Crashing into any of the landscape is fatal. But more of a problem are the alien craft that fly on from the right of the screen. These start off with simple spheres and birds that fly straight and are easily dealt with by your forward firing laser. Amazingly, the aliens, yourself, the laser fire and explosions are all exactly the same colour as the landscape – wow, what a programming achievement!

As you progress through the zones the aliens get gradually trickier and will start moving around screen more. This can cause you problems, particularly when trying to manoeuver in a tight spot.

On the whole the game is rather easy, your only problem is getting a tired fire finger. The last couple of zones get quite tough. But this doesn't lift the monotony of the task you're facing. I'm completely fed up with games that don't use the CPC's colour facilities; this one's plain ridiculous. **BW**

Even in black-and-white you can tell it's monocolour



FIRST-DAY TARGET SCORE
25,000

SECOND OPINION

The game looks as though it has been downloaded from a lesser machine with little alteration: the graphics are monocoloured albeit detailed; scrolling is jerky; sonics consist of bleeps and bangs. Not much fun even at £2. **RpM**

GREEN SCREEN VIEW

All visible.

The Verdict

GRAPHICS 44%
- □ Detailed scenery and explosions.
- ■ Where's the colour?

SONICS 24%
- ■ Zapping noises only.

GRAB FACTOR 47%
- □ No shortage of things to shoot.
- ■ Rather slow action.

STAYING POWER 41%
- □ Six long zones to get through.
- ■ Too easy and lacks variety.

AA RATING 45%
- ■ Not much imagination went into this one.

NEMESIS THE WARLOCK

Martech, £8.95 cass, £14.95 disk, joystick or keys

At last Martech has released this game for the Amstrad. I've had a friend GBHing my ear for weeks about how good it is for his computer. So I loaded it with trepidation and high hopes.

You play Nemesis the Warlock. Your quest: to boldly go where no slightly animated cripple has gone before. Oh yes, and to reach the heart of Torquemada's empire. To do this, you must kill a certain number of your demented followers – known, curiously, as Terminators – on each screen. This will allow you to search around for the exit.

You have a sword, which you can use to swipe blindly at the Terminators, and a gun. You can use the gun only when you have found bullets for it. The bullets are hidden in small boxes, dotted around the screen. In every box there are 12 bullets.

When you shoot a Terminator, its deflated body will fly into the air and stay where it falls. This clogs up the screen a bit too much, especially after a firing fit.

At the bottom of the screen is a display showing you how many bullets you have left, how many more Terminators are left for you to shoot before you can go in search of the exit, and a graphic representation of your heart as it gets bled dry by the evil influence of Torquemada. A picture of Torquemada's face gradually appears as he gets stronger.

I felt that the graphics let this game down. The animated walk of both Nemesis and the Terminators is jerky and uncoordinated. But I'm glad to say there are some nice touches in the animation department. When you shoot, the first pull on the trigger makes Nemesis pull the gun from his clothing. Every subsequent pull, until you move, shows the gun moving up from the recoil of the shot.

Sound is certainly nothing to write home about and lacks any realism. Not all it could have been, but still not a bad challenge. **CB**

FIRST-DAY TARGET SCORE
Reach the fourth screen.

SECOND OPINION

It all seemed very samey to me: hacking, shooting, platforms and little else. You'll certainly have to plug along for some time to complete it, but more variety and action would have been appreciated. It needed either more skill to outwit your opponents or many different opponents on screen. **BW**

GREEN SCREEN VIEW

Perfectly clear.

The Verdict

GRAPHICS 47%
- ■ Fuzzy characters.
- ■ Drab repetitive scenery.

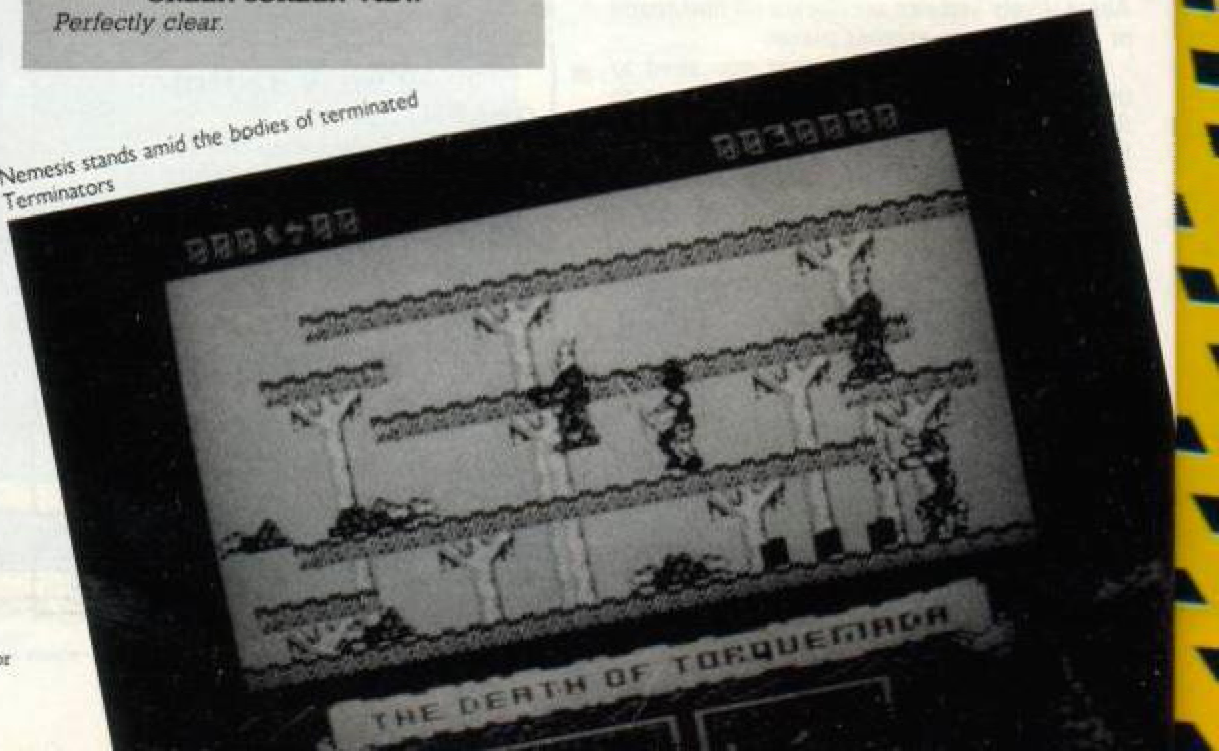
SONICS 33%
- ■ Average throat-cloggers.

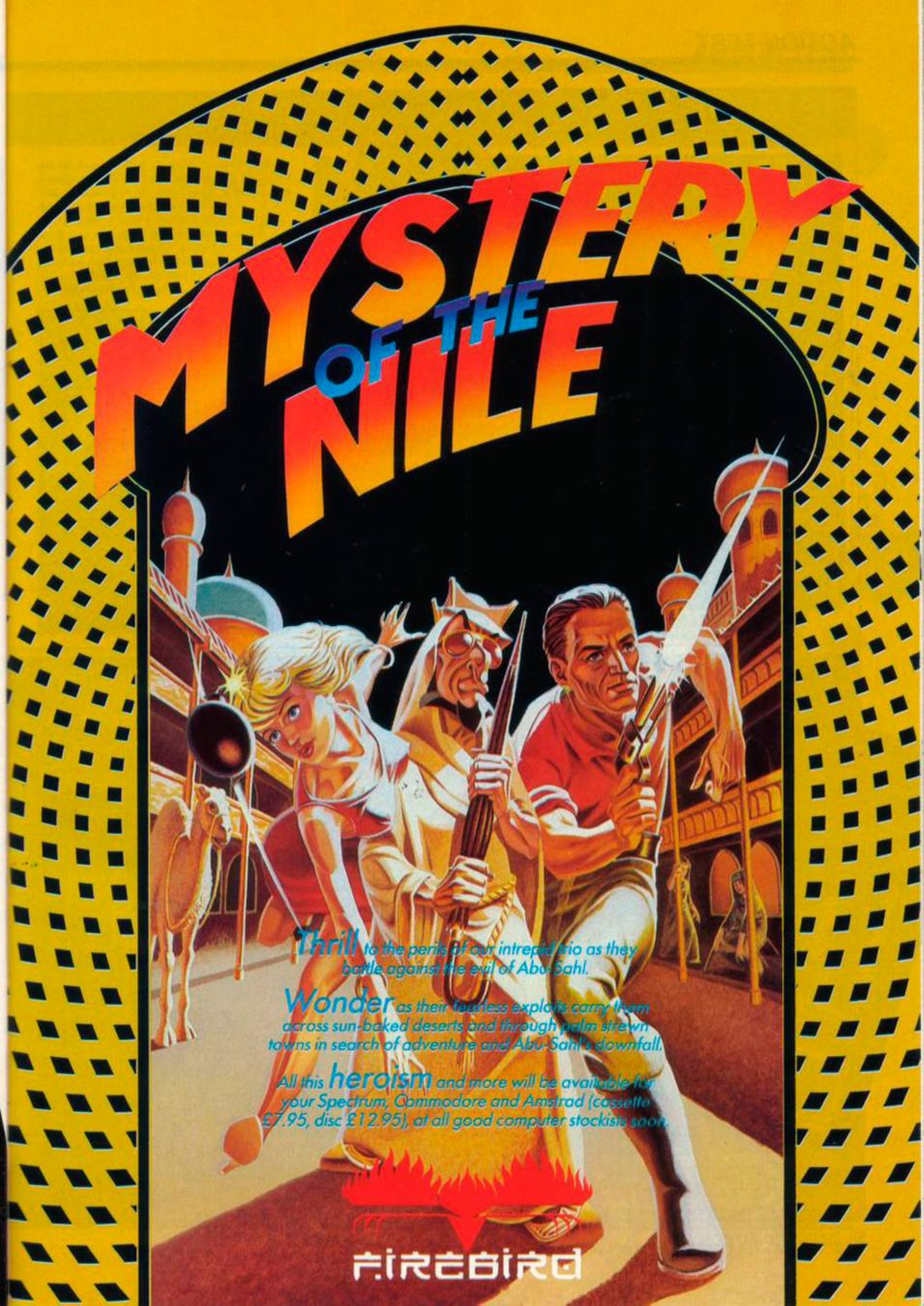
GRAB FACTOR 61%
- □ Easy to get into.
- ■ Dead bodies clog up the screen too much.

STAYING POWER 69%
- □ Added difficulties arise in later levels.
- □ Tough task to complete.

AA RATING 65%
- □ Not a bad incarnation of the comic.

Nemesis stands amid the bodies of terminated Terminators




MYSTERY OF THE NILE
Thrill to the perils of our intrepid trio as they battle against the evil of Abu-Sahl.
Wonder as their fearless exploits carry them across sun-baked deserts and through palm strewn towns in search of adventure and Abu-Sahl's downfall.
All this heroism and more will be available for your Spectrum, Commodore and Amstrad (cassette £7.95, disc £12.95), at all good computer stockists soon.
FIREBIRD

BALL CRAZY

Mastertronic, £2.99 cass, joystick or keys



AA RAVE

Authors keep coming up with new ideas for bouncing games and The Firm has produced one that will once again try to persuade you that you're a yo-yo. It's a one-screen challenge but it's addictive and has plenty of depth.

At the bottom of the screen is a row of five coloured blocks. A happy, smiling, cheerful, grinning, I'm-glad-to-be-alive face appears on the blocks and bounces up and down as if there's absolutely nothing wrong with the

The Verdict

GRAPHICS 88%
- ☐ Excellent use of colour and shading.
- ☐ Nicely drawn and animated sprites.

SONICS 38%
- ■ Not many effects and no music.

GRAB FACTOR 86%
- ☐ Simple, original concept to get to grips with.
- ☐ Good range of bonus features.

STAYING POWER 81%
- ☐ Gets much tougher as more aliens arrive.
- ■ Eventually lacking in variety.

AA RATING 85%
- ☐ Great budget game that should please everyone.

THING BOUNCES BACK

Gremlin, £9.99 cass, £14.99 disk, joystick or keys



In fact Thing bounces back, forwards, straight up, down, off the walls, floor, ceiling and round the inside of your head, ending up with your eyeballs doing a great impression of a tumble-



AA RAVE

world. Near the top of the screen is another coloured block and just above that is a square orifice (this is a happy, smiling, have-a-nice-day term for a hole).

The idea is that by bouncing on the blocks you cycle through a series of colours until the block is the same colour as the one at the top of the screen. Once all five blocks are the right colour another layer of blocks will appear on top of them and they will have to be changed to a new colour.

Now this wouldn't be much fun unless there were some problems along the way, and there are. The gap in the fabric of the game screen's backdrop (hole) will produce some strange alien creatures. These fly around the screen bouncing off the walls, ceiling and floor until they either hit you or get hit by a bullet. Of course it's not healthy to be hit by these guys and it's you that can shoot the bullets.

If you shoot an alien another one will soon appear. On later levels more than one alien will appear at once, making it harder and harder to avoid them. When your dementedly placid visage gets punctured it will deflate on the ground still grinning its little heart out.

You aren't totally vulnerable. Other objects come tumbling down the screen and you can collect them. There are extra lives in the form of air bottles, extra bullet canisters and a spinning green tick that will automatically turn all the blocks to the right colour. There's also a satellite that gives you some weird headgear. It provides invulnerability but also stops you collecting other objects. However, I don't recommend this because the face doesn't look half as pleased with itself as usual.

The layers of blocks aren't always flat but come in steps as well. This can make life particularly awkward when the blocks have built up to three or four layers. After four layers have been completed you move onto the next stage with more aliens. After every eight layers you get bonus points.

Despite being very simple in concept it's surprisingly addictive. You've got to anticipate where the aliens are going and try to avoid them by jumping, staying on the ground or shooting them. You've also got to grab all the extra lives and bonuses going to get as far as possible. One tactic is to hang around on the first level, build up plenty of lives and see how far you can get.



The game is well programmed using plenty of colour and detail. I'm convinced the smiling face is some sort of psychoanalytical tool to make the user feel placid and well-meaning, so you're bound to like him – aren't you? The sort of game you can play for hours and keep coming back to. **BW**

FIRST-DAY TARGET SCORE
20,000



SECOND OPINION

I thought the bouncing theme had reached its limit, but no. Mastertronic proves yet again that budget is beautiful. Ball Crazy *has a cuddly ball as the main character with an impish grin and a boisterous bob. Fun to play, with enough gameplay to last many a day.* **RpM**

GREEN SCREEN VIEW

Difficult to distinguish between some of the bricks.

---

dryer. He's still the springiest character in computer games. Having dealt with the Toy Goblin in *Thing on a Spring* he's got to shut down the Goblin's computer that is producing evil toys.

To shut down the computer he has to collect bits of its program in the form of disks, tapes, roms and listing paper. These are located in 11 game areas, which are multi-directional scrolling groups of 12 screens in size. Linking the 11 areas is a maze of pipes which he you roll him along, picking up objects for points and avoiding nasties on the way.

When he emerges on one of the playing areas Thing can get back to his springy ways and go bouncing off like a mad thing. After baddoinging wildly around for a few games you'll realise that it calls for a little thought as well. The screens are cunningly devised so that speed and accuracy are not all: you've got to choose the right routes.

You'll have a lovely time with all the transport mechanisms, if it weren't for the continual attentions of the nasty toys who attack you. There are blowers that act like lifts, conveyor belts, slides, bounce-pads, disappearing blocks, one-way valves and many more features. Best of all are the pipes: when Thing jumps into a funnel, he rolls along a pipe cartoon-style, like Sylvester Pussycat being hammered through a drainpipe.

There are also doorways: they are activated whe you pass through them and then slowly close down behind you. They can cut off vital areas of a screen. So you have to go through them in the right order and direction.

The toys all behave differently, but none of them is good for you. They may sap your oil reserves, without which you lose a life, bounce you around or paralyse you. Most can be dealt with by just bouncing on them, but they'll keep coming wave after wave. Laser beams will also deplete the oil level.

All levels have lots of green squares with question-marks on them. When hit from underneath these reveal themselves as bonus points, extra oil, an extra life or an oil depleter. After a while you'll get to know which ones to go for and which ones not.

When you want to leave an area you have to find the exit door, which takes you back to the pipe system. You can escape without finding an exit door, but it will cost you a life.

The graphics are colourfully designed and the scrolling smooth. The title tune is an adaptation of the original *Thing* music but even nicer to sit and listen to. I found the action an enjoyable mix of unfettered, wild spladoing-boinging and some tricky bits of screen-mapping. It's so easy to play and get hooked on, but completing it will be no easy task. **BW**

FIRST-DAY TARGET SCORE
25,000

SECOND OPINION

If you enjoyed the original springy game from Gremlin, you'll be overjoyed with Thing's return. He bounces higher, faster and further. Lots of screens, a foot-tapping tune and a tough challenge. **RpM**

GREEN SCREEN VIEW

It bounces in green too.

The Verdict

GRAPHICS 84%
- ☐ Lots of colourful, well-animated sprites.
- ☐ Good multi-directional scrolling.

SONICS 75%
- ☐ Delightful title tune.
- ☐ Good in-game effects.

GRAB FACTOR 84%
- ☐ Bouncing is as much fun as ever.
- ☐ Not just fast action but thought needed as well.

STAYING POWER 82%
- ☐ Getting all the program will be difficult.
- ■ Tends to lose its appeal after a while.

AA RATING 83%
- ☐ Great follow-up for all bouncing fans.

WORLD GAMES

US Gold, £9.99 cass, £14.99 disk, joystick or keys

I know, it's another one of those sporting games, but it is a fair variation on the overall theme. Tossing the caber hasn't been recognised by the Olympic committee yet, has it?

Need I really explain the format? Oh, all right. You are an athlete, entered in the World Games. You must fly around the world, competing in eight strange events. The first is the weightlifting, in Russia. You choose your weight and start your lift. When you think the time is right, dip under the bar and push up. If you think you have it under control, jerk the bar up and try to straighten your arms and legs. When the judges are satisfied, they will light their lights. You have the option of competing in the snatch or the clean-and-jerk.

SECOND OPINION

Like Chris I long ago got fed up with sporting games, but still quite enjoyed this one. Events like the weightlifting and skiing need skill and timing. Log-rolling is a nice idea but badly implemented. The others are average events which you can get better at with practice but they don't really get the adrenalin pumping. Perhaps it's time for another good old-fashioned joystick-wrecking decathlon.

BW

GREEN SCREEN VIEW

Eight events are all okay.

Following these are cliff diving off Acapulco's infamous La Quebrada, French slalom skiing, log-rolling in Canada, bull-riding in the good ol' US of A, caber-tossing in Scotland, and finally, sumo wrestling in Japan.

What can I say? I got tired of this type of game after *Track and Field* in the arcades. The variation in events with this one hardly engenders my enthusiasm. Still, there are enough nice touches to bring a smile to the otherwise blank look on my face. The weightlifting is the most realistic yet and is good fun to practise, using the "practise one event" option. The log-rolling and the bull-riding annoy me, but you usually get the odd couple that do in this sort of suite. **CB**

FIRST-DAY TARGET SCORE

Qualify in all events.

The Verdict

GRAPHICS 73%
- ☐ Very nice animation in places.
- ☐ Most characters have a lot of detail.

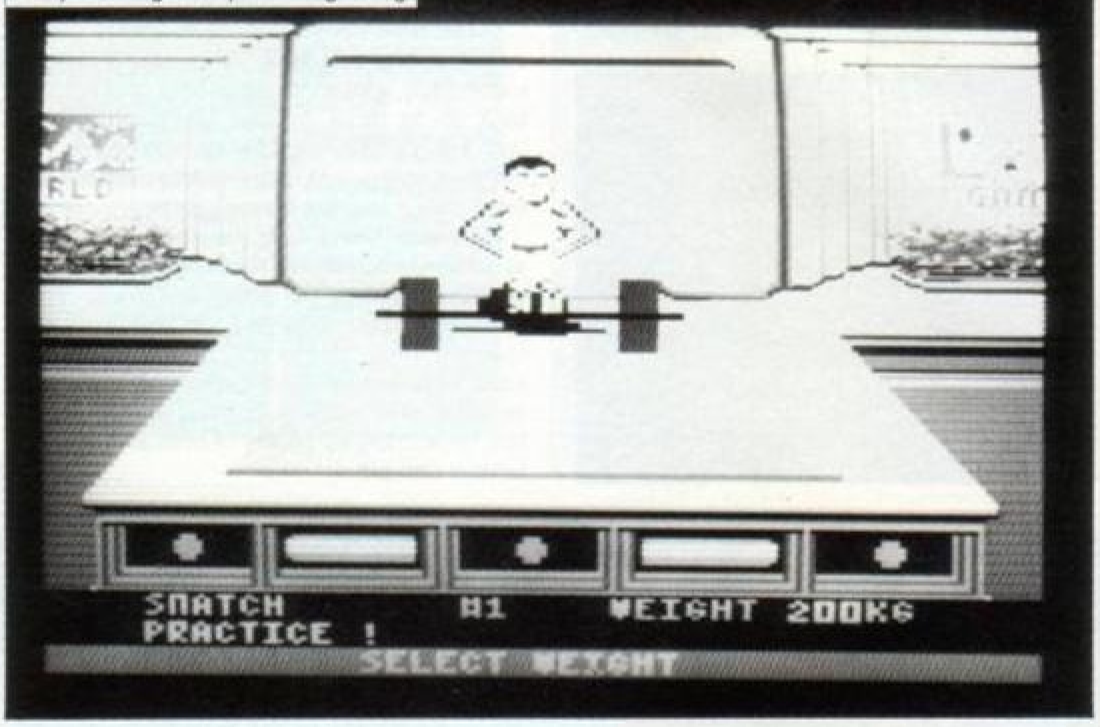
SONICS 54%
- ☐ Nice title tune.

GRAB FACTOR 67%
- ☐ Practice option is useful.
- ■ 6128 life is tough without remote tape-control.

STAYING POWER 74%
- ☐ Eight different events to compete in.
- ☐ Tough high-score targets to beat.

AA RATING 70%
- ■ Another *Decathlon*-type game.

Heavy breathing for a spot of weightlifting

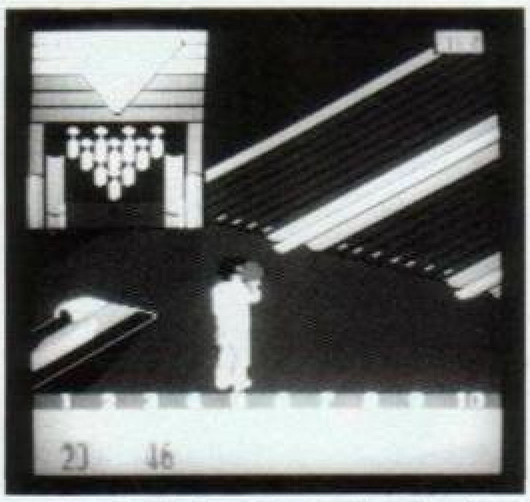


Next off to Germany for the barrel-jumping. Choose how many barrels you want to attempt and start to skate toward them. Left and right pushes on the joystick will push the skater's left and right legs.

STRIKE

Mastertronic, £2.99 cass, joystick or keys

Ten-pin bowling is not one of the first things that come to mind when I think of possible computer simulations. Unfortunately, I think Mastertronic fell into the "need for originality" trap with this one.



As with "live" ten-pin bowling, the object of the game is to knock over ten pins with one ball. The inlay says, "Don't expect to master the game after one try." I should be so lucky! It took me eight tries just to get the ball to roll down the alley.

You control the line of the ball by moving the man on the screen left and right at the top of the alley. When you think he is in the right position, you press Up, and he will start his run up. Pressing Fire will make your bloke hold the ball ready to throw it. When you release the Fire button, he will let go of the ball. If you release the ball too soon, your little man will drop it. Releasing it too late will cause him to drop it on his foot. Serves him right.

The instructions go into great detail about the rules of the game. I got lost when it started talking about "turkeys" and stuff. I'm sure it will make sense to you if you are a bowling fan.

Well, the graphics are blocky-tacky. *(translates as "not very good," I think – Ed).* The sound is forgettable, but I think there is an attempt at a tune there somewhere. The only nice touches are the lifting of the pins and the ball dropping on the foot. It's funny at first, but oh boy, do you grow to hate, detest and despise it. **CB**

SECOND OPINION

I like ten-pin bowling but computer simulations of it leave me cold. I liked the graphics, despite Chris thinking they're "blocky-tacky". The real problem is speed: you don't have to simulate the tedious process of sitting around while the pins are moved, do you? Take my advice and go play the real thing. **BW**

GREEN SCREEN VIEW

Pin-perfect and clear.

FIRST-DAY TARGET SCORE

Beat computer

The Verdict

GRAPHICS 63%
- ☐ Good animated pickup of pins.
- ■ Drab scenery.

SONICS 33%
- ■ Pardon?

GRAB FACTOR 49%
- ■ Difficult to master.
- ■ Pin pickup gets immensely tedious.

STAYING POWER 52%
- ☐ Skill required to achieve any sort of competence.
- ■ Bowling is limited in its variety.

AA RATING 49%
- ■ Too boring for me.

What do you call a man with a diver on his head?

GALLETRON

Mastertronic, £1.99 cass, joystick or keys

Another cheapie to help your pocket-money last. It's a simple game but a fun one. You control a "Tiegyr" surface skimmer, which you must use to blow up communication satellites. These satellites are dotted around an area called "No man's land," represented by 3D flick-screens.

The Verdict

GRAPHICS 62%
☐ Pretty and almost colourful explosions!
■ Characters are small and monochromatic.

SONICS 42%
■ Horrible title tune.

GRAB FACTOR 66%
☐ Lots of objects to shoot or pick up.
■ Rotational ship control.

STAYING POWER 69%
☐ A long and arduous mission to complete.
☐ Three levels of play.

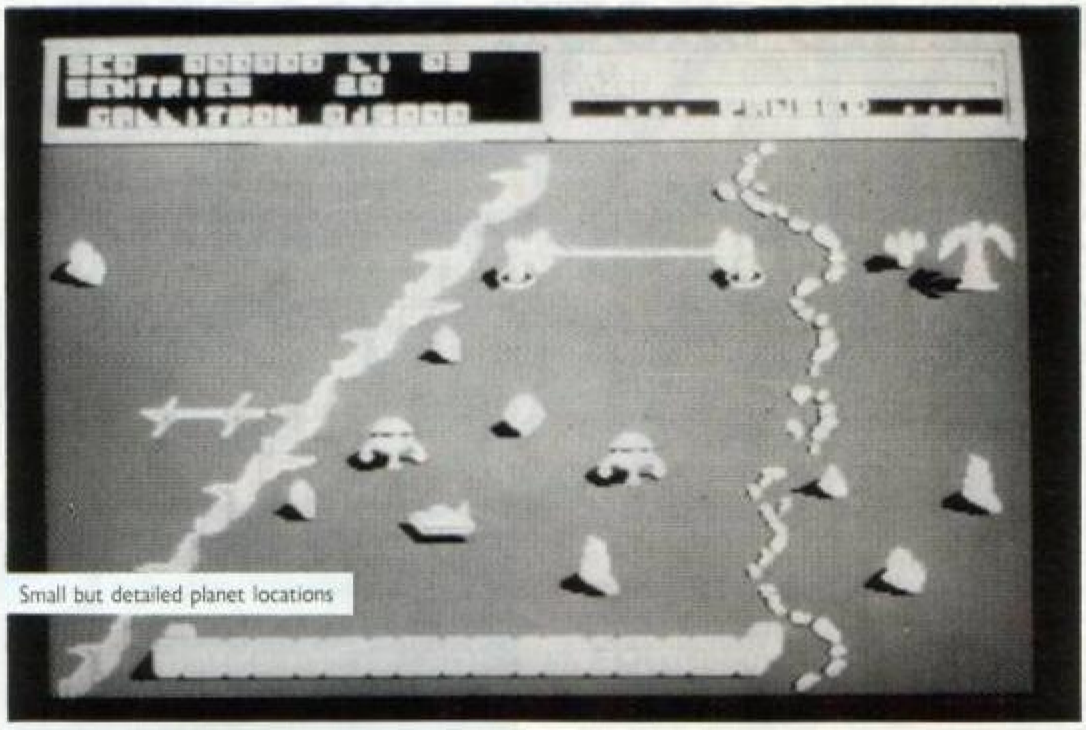
AA RATING 67%
☐ Another fine game for Steve Elward's credit list.

Your surface skimmer is equipped with the latest technology. You have a positronic proximity blaster – a laser gun. You also have a neutrino magnetron pulser.

Movement is rotational. Each rotation amounts to a 45-degree turn left or right. You can thrust forwards or backwards. It is quite useful to be able to thrust backwards when confronted by an enemy missile zooming towards you. Every now and then, you will come across a laser gate between two toll-booths. Shooting one of these toll-booths will blow up the laser gate, allowing you to get through it.

Dotted around are supplies; pick them up by passing over them. They include fuel, laser cells, extra lives and a bonus. Once you have blown up a satellite, you will be transported to the next area. Destroying nine areas will take you to Galletron. Once here, you must destroy the central powerhouse, which is in the form of two large Teslerons and a central communications dish. If you destroy all these, you have won the war.

The graphics are in a single colour, with very little detail. The scenery is drab and dull. The gameplay is good, and easy to get into, even though the control of the surface skimmer is rotational. Sound effects are almost non-existent. **CB**


Small but detailed planet locations

SECOND OPINION

This is a simple but effective game that at the price will disappoint few people. You won't get a mega-game but it will provide plenty of enjoyment and reasonable difficulty. I preferred Steve Elward's Back to Reality, *but this isn't bad either.* **BW**

GREEN SCREEN VIEW

Dark colours – can prove awkward.

FIRST-DAY TARGET SCORE
5,000

HOWARD THE DUCK

Activision, £9.99 cass, £14.99 disk, joystick only

What an incredible waste of oil based products this Howard the duck life story has turned out to be. The film was hardly raved, and the game?! Well, read on my little ravettes.

Guess what? You play the part of Howard! Surprise surprise! Get out your dark shades and your King Teds. Not so that you look the part, but so you see little of the game! You get parachuted onto this island wot's bin taken over by this mean geezer called the Dark Overlord. He knicked your best mates – Beverly and Phil – for some dirty reason. Still, you have been challenged by him to come and rescue them from his volcanic retreat.

The first thing you must do when you land, is to find the back-pack you dropped earlier. Don't worry, it's not difficult. It's just round the corner to the right. Your only worry, is the Mutant Slime. You must take this at a running jump. If you don't clear it, it will drag you back to where jumped from.

The next difficulty, is the water, which you cross with the use of the solar-powered jet pack which you just happened to pack in your back-pack. Once across the first stretch of water, you will encounter annoying little Mutant Maniacs. These will try to kick you off the island. Use your 'Quack-fu' to kick them off instead. Eventually, you will reach the rope bridge which you must cross whilst dodging the molten rocks which are hurled towards you. Once across, you are automatically given your Ultralight flyer. This enables you to fly to the top of the volcano. Once inside, you must avoid the nasty stalactites which the main man throws at you. When you have him in your sights, you must shoot and kill him. Even then your task is not complete. You must shut down the volcano by flipping a lever.

Do pardon the small injection of humour in this review, but I had to do something to liven it up. Not a good game. Graphics are indescribably bad *(Try – Ed)*, jerky animation and poor backgrounds *(thankyou)*. Sound is a definite no-no. Playability cannot be expressed without cursing. **CB**

FIRST-DAY TARGET SCORE
Visit the Volcano.

SECOND OPINION

There were some nice ideas in the game but they didn't translate into decent gameplay. There isn't enough variety to keep you interested, repeatedly kicking mutants isn't my idea of fun. I haven't seen the film, and on this showing I'm rather glad. **BW**

GREEN SCREEN VIEW

No problems



The Verdict

GRAPHICS 36%
■ Dull and repetitive background.
■ Sluggish Animation.

SONICS 32%
■ Overly average.

GRAB FACTOR 42%
☐ Tough task to complete.
■ Repetitive start process.

STAYING POWER 27%
■ Higher levels are too hard.
■ Too much luck involved in fending off the MMs.

AA RATING 31%
■ Like the film, a waste of tape!

Cliff

COSMIC SHOCK-ABSORBER

Martech, £8.95 cass, £14.95 disk, joystick or keys

It's a bit of a novelty to find a shoot-em-up where you not only have to blast away at lots of aliens but repair your equipment along the way as well. This gives you two distinct game sections: a 3D shoot-em-up and a race-against-the-clock-puzzle replacing pieces on a circuit board.

The 3D blasting puts you up against wave after wave of alien craft of different shapes and sizes. You start off with just circles flying at you, followed by tie fighters (remember *Star Wars*?), flying birds (reminiscent of *Starglider*) and spinning flying saucers. They don't vary much in their behaviour, just flying straight at you.

You can move your ship around to try to centre the aliens. But there aren't any sights, and being accurate with the sporadic laser fire isn't easy. This means you just wander around screen, blasting away and hitting aliens fairly randomly. All the time your laser energy and shield power will be falling under the pressure of the attack.

You have to destroy a set number of ships on each wave to move onto the next. The number increases for each succesive wave.

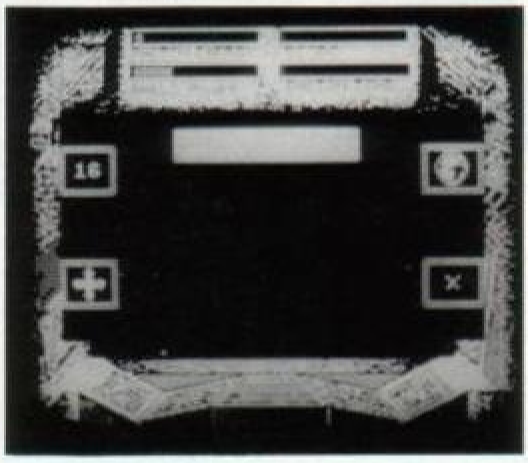
While all this blasting mayhem is going on you may notice an icon flashing to indicate a part of the ship has failed. You have to access a repair screen where there's a circuit diagram. You're given five seconds to study it and then one or more of the components is removed. You have to replace it with the right colour-coded component within a time limit. If you fail, the game ends.

Apart from the repairing I found the whole thing rather boring, not helped by a bug which made terminal crashes quite frequent. The zapping seems to require little skill, although the graphics have been nicely programmed. Looks to have suffered badly in conversion.

BW

FIRST-DAY TARGET SCORE
5,000

Is your system ready for this cosmic shock?



SECOND OPINION

An average game with some pleasant graphics and pleasing musical ditties. The task, which involves a lot of alien-zapping, tends to get repetitive though.

RpM

GREEN SCREEN VIEW

No trouble in this department.

The Verdict

GRAPHICS 63%
□ Some good use of vectors.
□ Well-designed screen and windows.

SONICS 62%
□ Reasonable title tune and zappy effects.

GRAB FACTOR 60%
□ Circuit-board puzzle adds variety.
■ Little skill in blasting.

STAYING POWER 56%
□ Lots and lots of aliens to plough through.
■ Oh boy, does it get repetitive.

***AA* RATING 58%**
■ Our version had a bug which frequently crashed the game.

GUNSTAR

Firebird, £1.99 cass, joystick or keys

There always seems to be a market for a left-right shoot-em-up, which is just as well because software houses keep producing them. They've been relegated to the ranks of the budget games and rightly so but still provide cheap enjoyment. This one from Firebird is a five-stage battle against various types of alien ships.

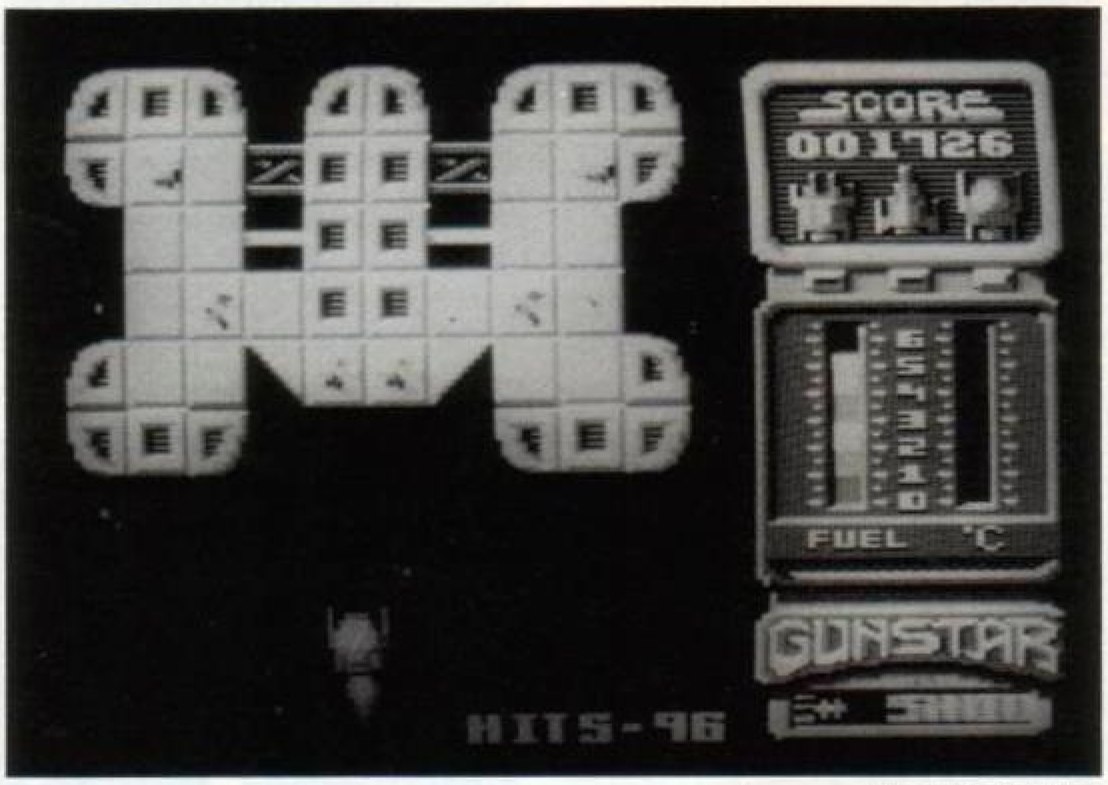
The first attack wave is made up of identical alien fighters which fly down and across the screen doing an occasional turn. They shoot bullets as well. Avoid them: colliding with them or the ships will lose one of your three lives. Hang around blasting ships for long enough on this stage, and it will clear, letting you progress to the next stage.

Here you have to avoid asteroids whizzing down the screen at different speeds. Dodging in between them takes good timing and some study of the asteroid patterns. You can't shoot them; a collision is fatal.

Stages three and four put up a static group of gun turrets which shoot at various angles. You have to hit each one a number of times to destroy it, without getting hit yourself.

Stage five is a simple docking manoeuvre with a mothership to refuel. You then go off and do the whole thing again. All this doesn't make for a very exciting game – just a bog-standard shoot-em-up. The graphics are colourful, but the gameplay is repetitive and somewhat frustrating.

BW



Alien ship in stage three

FIRST-DAY TARGET SCORE
10,000

SECOND OPINION

The graphics are excellent and sound-effects bearable. Unfortunately Gunstar is let down by one major design flaw: say you reach stage 3 and die, you go back to stage 1. So frustrating. Still, at £2 who's complaining?

RpM

GREEN SCREEN VIEW

Aliens on several levels are hard to spot.

The Verdict

GRAPHICS 57%
□ Colourful ships and explosions.
■ Difficult to see alien bullets.

SONICS 28%
■ Zapping effects and explosions.

GRAB FACTOR 56%
□ Stages are initially quite tough.
■ Return to stage one when you die.

STAYING POWER 48%
■ Five stages doesn't provide enough variety.

***AA* RATING 54%**
■ No points for originality.



CHEAT MODE

Dick'n'Bob check out your tips, hacks, pokes and game-busting ploys. The best ones could win an entire issue's *Amstrad Action* Raves! So why not send *your* latest gem for *AA* to test? Send to: Cheat Mode, *Amstrad Action*, 4 Queen Street, Bath, BA1 1EJ

THE SACRED ARMOUR OF ANTIRIAD

Stephen Stokes of Aylesbury, Bucks, has poked Palace's game giving you invulnerability. Enter it using Method 1, but take care: the radiation can still get you.

```
1 ' Antiriad -- tape
2 ' by Stephen Stokes
3 ' Amstrad Action    August 87
10 FOR a=&2000 TO &2023
20 READ v$: POKE a,VAL("&"+v$)
30 NEXT a: FOR a=&BF00 TO &BF1A
40 READ v$: POKE a,VAL("&"+v$)
50 NEXT a: CALL &2000
60 DATA 01,00,00,cd,38,bc,21,40
70 DATA 00,11,64,00,3e,31,cd,a1
80 DATA bc,d2,00,00,f5,3e,c3,32
90 DATA 94,00,21,00,bf,22,95,00
100 DATA f1,c3,40,00,3e,00,32,be
110 DATA 5b,32,c2,5b,2a,a8,00,f3
120 DATA d9,06,7f,0e,8c,3a,aa,00
130 DATA e6,03,b1,ed,49,d9,e9
```



Fly Spy

Richard Aplin, the author of Mastertronic's *Fly Spy*, phoned us to let everyone in on the cheat mode he wrote into the game. All you have to do is pause the game and type in a number between 1 and 7 to get the following cheats.

1 You can fly through walls.
2 Infinite fuel.
3 You can pick up any object.
4 Infinite laser shots.
5 Infinite lives.
6 Infinite shield.
7 Gives you the teleport code if you press Control with the T key.
0 Takes you back to the game.

Asphalt

Tips on the Ubisoft car-wrecking game come from **George Britton** of London SE21.

General: learn the general wave patterns. You're hitting the enemy when you see circular flashes on their sides and front.

Motorbikes: can be mined or shot. The yellow biker should always be mined.

Sidecars: At first they seem tricky but they always come on the side of the road. Move close to the edge so that they can't get past you, then you can easily destroy them.

Cars: because of their size they're more vulnerable to mines and the same tactics as the sidecars. The big problem is the car with the burner on the back. Try to attack him from an angle and beware when it's destroyed from crashing into it.

Machine-gun: there's an unfortunate pause when the ammo is being replenished. So after a wave if there's less than 10 shots quickly waste them so you're ready for the next attack.

Mines: must be dropped quickly and accurately. Too late and the target will drop away.

Fireburners: not as impressive as they first seem. Avoid using them.

Protection: the rear is by far the most vulnerable and is difficult to protect. The sides can be guarded by shielding against the side of the road.

BMX Simulator

Phil Howard of Mapperley, in Nottingham, has once more had a heavy poking session. Code Masters' cheapie is the first to fall. Phil supplies you with a Method 1 poke that gives you infinite time to complete each circuit.

```
1 ' BMX Simulator -- tape
2 ' by Phil Howard
3 ' Amstrad Action    August 87
10 DATA 21,35,bf,36,cd,23
20 DATA 36,34,23,36,be,c3
30 DATA 00,bf,21,e2,39,36
40 DATA c3,23,36,24,23,36
50 DATA be,21,40,00,e5,21
60 DATA 00,bb,e5,c3,b7,39
70 DATA e5,21,91,01,36,8c
80 DATA 23,36,43,23,36,f9
90 DATA e1,f1,f3,c9,21,59
100 DATA dc,36,00,21,00,c0
110 DATA c9
120 y=0: MEMORY &2000
130 FOR x=&BE00 TO &BE3C
140 READ a$: a=VAL("&"+a$)
150 POKE x,a: y=y+a: NEXT
160 DATA if y<>&18cd then 190
170 LOAD"BMX SIMULATOR"
180 CALL &BE0E
190 PRINT"DATA ERROR"
```



Toot's corner

Super Cycle

Oh dear, oh dear. RpM made a slight mess of the *Super Cycle* poke last issue. If you tried it you probably kept getting the "error in data" message. Add this line, and on your bike: `21 b=0`

Elite

6128 and 664 owners might have had a problem with the *Elite* poke in issue 20. To rectify this, remove line 140 and alter line 80 to read:

```
80 LOAD "common2x", &C000
```

Glider Rider

Jan-Mirko Maczewski's *Glider Rider* poke had the last line chewed off last month. It should have read:

```
70 CALL &400
```

Arkanoid

RpM has fouled up again. His *Arkanoid* poke will have caused many error in data messages to appear. This line will get your bat swinging: `255 b=0`

Poke method for tape

All this month's Cheat Mode tape pokes use Method 1. If you have a 664 or 6128 first type `|tape`. Rewind the game tape to the beginning. Now type in the poke listing. Then type `RUN` and press Enter (without using the key marked CTRL or Control). Press Play on the cassette deck, then any key on the main keyboard. The tape should now start to play through in the normal way.

Football Manager

Lee Gatiss of Sale, Cheshire, has an excellent cheat for this game of pensionable age – which has some of the worst graphics I've ever seen. This, is what, you doooooo!

Save the game data, or take your existing saved game data, and load it into a word-processor (we loaded it on *Protext*). It should present you with a nice neat file which you can fiddle.

The first line of data contains the following information:
First number: number of team (team numbers are listed later in the data).
Second: how much money you've got.
Third: how much you owe.
Fourth: number of games played this season.
Eighth: number of seasons played so far.
Ninth: the division you're in.
Eleventh: number of FA Cup matches played so far.
Thirteenth: skill level.
Fourteenth: team morale.
Last: the manager's name.

The next 64 lines of data are the team names. You can change them quickly from here rather than in the game as a whole. The two numbers following the team name refer to their playing strip and change strip.

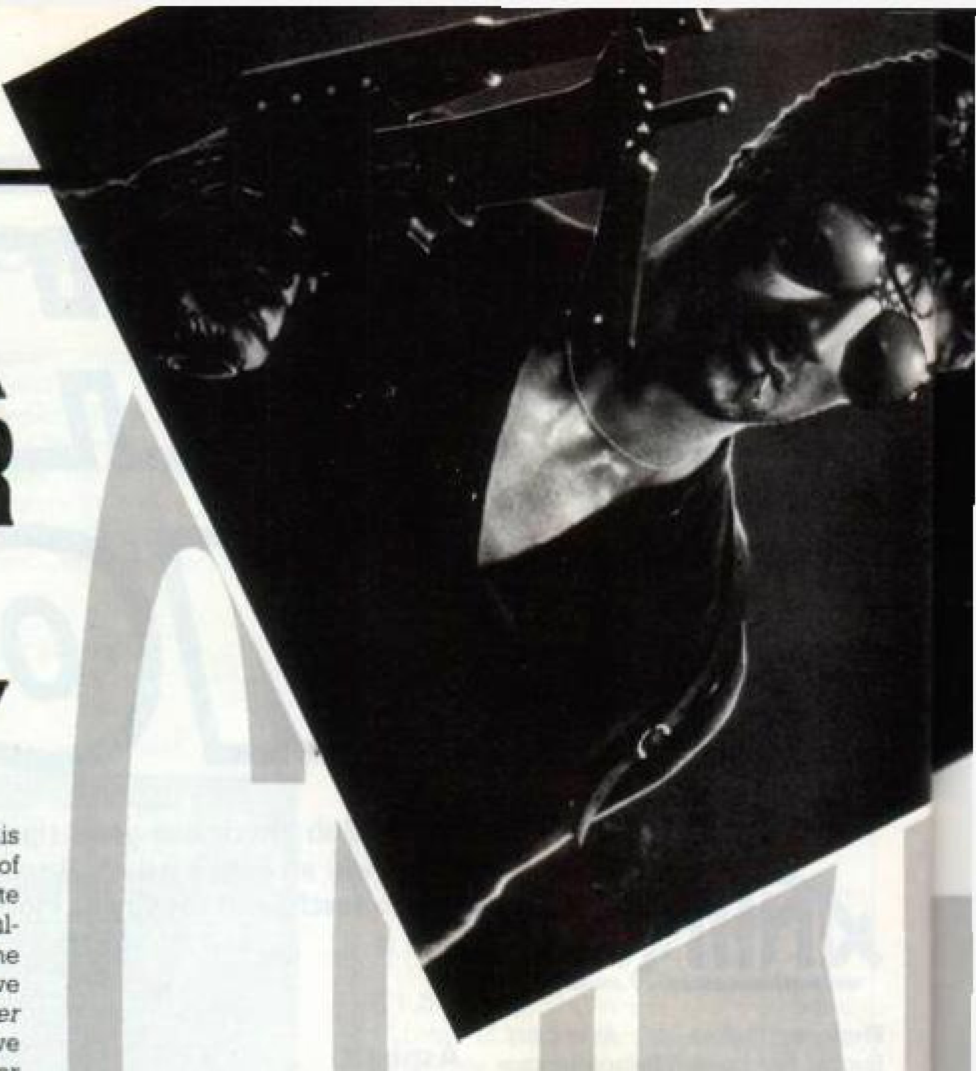
Next are the player details, made up of the following information which you can alter how you like.
First comes the player's name.
Second figure will be 0, 1, 2 or 3. 0 means the player isn't in your squad, 1 means in the squad but not selected, 2 means selected to play, 3 means injured.
Third figure: value of player.
Fourth figure: energy rating.
Fifth figure: skill rating.

The last set of data refers to the division, who's top and who's bottom. The middle two numbers refer to goals for and against.

KILLER RING

Another poke from **RpM**. This time it's for the disk version of Reaktor's shoot-em-up. Infinite lives and varying degrees of vulnerability are the flavours of the day. Type in the listing and save it to a disk (it can be the *Killer Ring* disk). Before running remove the options you don't require. For example if you don't want invulnerability to bombs, leave out line 200.

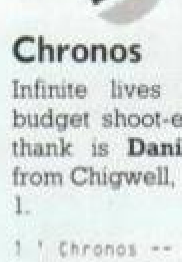
```
1 ' Killer Ring - disk
2 ' by RpM
3 ' Amstrad Action
10 t=&9000
20 READ a$
30 IF a$="-1" THEN 60
40 POKE t,VAL("&"+a$)
50 t=t+1:GOTO 20
60 MODE 1:CALL &9000
70 DATA 06,08,21,1a,90,11,00,c0
80 DATA cd,77,bc,21,40,00,cd,83
90 DATA bc,cd,7a,bc,cd,22,90,c3
100 DATA 40,00,52,49,4e,47,2e,42
110 DATA 49,4e
140 '
150 ' infinite lives
160 DATA af,32,93,17
170 ' aliens don't kill
180 DATA 3e,c9,32,af,12
190 ' bombs don't kill
200 DATA 3e,c9,32,91,12
210 ' remove bombs
220 DATA 3e,c9,32,2d,0c
230 ' total invincibility
240 DATA 3e,c9,32,08,12
250 '
260 ' leave the remaining DATA
280 '      in the listing
290 DATA c9,-1
```



COBRA

Ocean's game of the film has been subjected to humiliation by **Nicholas Pavis**. Infinite lives are up for grabs. Enter the poke using Method 1, but take care if you use a 664 or 6128: several data lines must be altered. See below.

```
1 ' Cobra -- 464 tape
2 ' by Nicholas Pavis
3 ' Amstrad Action    August 87
10 DATA cd,67,bb,21,14,bf,36
20 DATA c9,cd,00,bf,21,ca,4e
30 DATA 36,00,23,36,00,23,36
40 DATA 00,23,36,00,c3,00,41
50 DATA 21,08,22,36,6b,23,36
60 DATA 99,21,40,20,11,40,00
```



Chronos

Infinite lives for Mastertronic's budget shoot-em-up. The man to thank is **Daniel Underwood** of from Chigwell, Essex. Use Method 1.

```
1 ' Chronos -- tape
2 ' by Daniel Underwood
3 ' Amstrad Action    August 87
10 OPENOUT"":MEMORY &2FF:CLOSEOUT
20 LOAD"ALLCHR": POKE &7388,&FF
30 CALL &8FDC
```

ZUB

The cheapies certainly have been given a bashing this month. Mastertonic's cute character is immovable (that is, he won't fall from his perch when something knocks into him) thanks to **Ian Grainger** of Wingate, County Durham. Method 1 will do the trick.

```
1 ' Zub -- tape
2 ' by Ian Grainger
3 ' Amstrad Action    August 87
10 MEMORY &A03F
20 LOAD"****************",&A040
30 POKE &A058,&C9: CALL &A040
40 FOR t=1 TO 22: READ a$,b$
50 POKE VAL("&"+a$),VAL("&"+b$)
60 NEXT t
70 POKE &4319,0 ' immunity
80 CALL &9000
90 DATA 4016,a0,402a,a0,40af,a1
100 DATA 40b2,a1,40ba,a1,40cc,a1
110 DATA 40cf,a1,40d5,a0,40de,a0
120 DATA 40ed,a0,40f4,a0,41ad,a1
130 DATA 4103,a0,410d,a0,413r,a0
140 DATA 4147,a0,4155,a0,4164,a1
150 DATA 4169,a1,41a1,a1,41aa,a0
160 DATA 41ae,c9
```

ALIENS

PR Tonks from Walsall read a previous batch of tips for the Electric Dreams game and thinks his method is much simpler.

Move Ripley quickly, and without firing a shot, to room 247, just before the Queen's chamber. Then repeat for one other character. Now blow the door to the chamber and kill everything that moves. Try to kill an alien in front of a wall of growth. This allows you to clear the wall while keeping the dead alien in view, and no other aliens will set off your tracker.

You'll need to use both characters to clear all the aliens and growth – just switch when one runs low on ammo. Once you've got the first company message just switch control to one of the four characters at the start and you'll get the second message, completing the game.






```
70 DATA 01,19,02,ed,b0,21,40
80 DATA 00,e5,21,00,bb,e5,21
90 DATA 19,02,e5,21,07,b8,e5
100 DATA 21,bb,02,e5,f1,21,ea
110 DATA b1,11,d9,b1,f3,c9
120 MEMORY &2000
130 FOR x=&BE00 TO &BE4B: READ a$
140 POKE x,VAL("&"+a$): NEXT
150 LOAD"": CALL &3A6A
160 LOAD"!",&2040: CALL &BE1C
```

If you own either a 664 or 6128 machine, then type in the major listing – making the alterations shown below:

```
5 ' Alterations for 664 and 6128
90  DATA 19,02,e5,21,1f,b1,e5
100 DATA 21,bb,02,e5,f1,21,e5
110 DATA b7,11,d4,b7,f3,c9
```

Auf Wiedersehen, Monty

Be careful when you type in this Method 1 poke. Leave out all REM statements, or it won't work.

Nick Pavis of Rugby, Warwickshire, has been busy on Gremlin's game. You can choose to remove crushers, have infinite lives, have the air tickets in your possesion or be a super-mole.

Some of the data has REMs following to indicate what action the data performs. If you don't want infinite lives then leave out line 130, for instance.

```
1 ' Auf Wiedersehen, Monty --tape
2 ' by Nicholas Pavis
3 ' Amstrad Action    August 87
10 MODE 1: a=&340
20 READ a$: IF a$="+" THEN 50
30 POKE a,VAL("&"+a$)
40 a=a+1: GOTO 20
50 CALL &340
60 DATA 21,00,00,11,00,c0
70 DATA 06,00,cd,77,bc,21
80 DATA 00,01,cd,83,bc,cd
90 DATA 7a,bc,21,62,03,22
100 DATA 8f,01,3e,c3,32,8e
110 DATA 01,c3,00,01
120 DATA 21,63,fe,36,c9 'remove
    crushers
130 DATA 21,b4,ad,36,c3 'infinite
    lives
140 DATA 21,9e,a5,36,00 'air
    tickets
150 DATA 21,18,85,36,c9 'super
    mole
160 DATA c3,00,80,+
```

Craig Winfield of Under Hill, Wolverhampton, has pointed out that the command `POKE 800,201` will give you infinite lives in the Monty game. Just type it in before running the game – tape only.

Nemesis

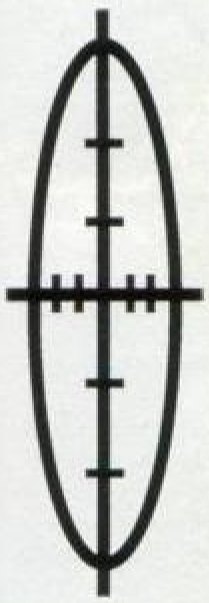
Neil McCauley and **Antony Porter** of Chatham, Kent, have bumped heads and produced a poke for Konamis' shoot-em-up.

Enter it using Method 1 for double laser and missile fire. You will also have a shield, which should help you somewhat on your journey.



```
1 ' Nemesis -- tape
2 ' by Neil and Antony
3 ' Amstrad Action    August 87
10 ENT -1,1,9,1
20 ENT -3,2,-6,1,2,6,1
30 ENT -5,1,-2,1
40 ENV 1,2,-1,2
50 ENV 3,2,3,1,3,2,1
60 ENV 5,2,-1,1
70 ENV 7,10,-1,5,30,0,1,10,1,10
80 ENT -7,2,-1,1,2,1,1,5,0,2
90 ENV 8,2,2,2,5,-1,2,1,-7,5
100 ENT -8,5,0,1,2,-1,1,2,1,1
110 MODE 1: BORDER 0
120 FOR t=0 TO 15: READ a:
    INK t,a: NEXT
130 DATA 0,6,11,23,6,7,8,9,11
140 DATA 12,13,15,16,18,24,26
150 LOAD"!nemesis",&C000
160 OPENOUT"y": MEMORY 999
170 LOAD"NEMCODE",1000
180 POKE &9682,212:POKE &96AA,&20
190 FOR t=550 TO 980:
    POKE t,0: NEXT
200 CALL 38341
```

ARMY MOVES



Here's a welcome poke from **Kevin McCaughey** in Bangor, Co Down. It gives you various methods of cheating in both parts of Imagine's shoot-em-up. Use Method 1 and blast away to your heart's content.

The first listing is for *Army Moves* part one – you can have immunity from bullets or enemy craft (or both) and infinite lives.

```
1 ' Army Moves (part I) -- tape
2 ' by Kevin McCaughey
3 ' Amstrad Action    August 87
10 N=0: CHK=0: L=70: MODE 1
20 FOR I=&A000 TO &A088
30 READ A$: J=VAL("&"+A$): POKE I,J
40 N=N+1: CHK=CHK+J
50 IF N=8 THEN N=0: READ AMOUNT:
   IF CHK<>AMOUNT THEN PRINT"
   ERROR IN DATA LINE";L: END
   ELSE IF N=0 THEN CHK=0:L=L+10
60 NEXT I
70 DATA AF,CD,0E,BC,21,AF,39,11,&360
80 DATA 00,00,3E,16,CD,A1,BC,CD,&34B
90 DATA 6A,3A,21,40,A1,11,00,00,&1B7
100 DATA 3E,16,CD,A1,BC,21,40,A1,&380
110 DATA 01,26,02,3E,8D,CD,78,A0,&2D9
120 DATA 21,86,A1,01,E0,01,3E,3D,&2A5
130 DATA AE,CD,78,A0,21,40,A1,11,&3A6
140 DATA 00,BB,01,26,02,F3,ED,B0,&374
150 DATA DD,21,00,BF,11,4F,00,CD,&2EA
160 DATA 67,BB,DD,21,00,C0,11,00,&2F1
170 DATA 40,CD,67,BB,DD,21,1E,05,&350
180 DATA 11,86,8D,CD,67,BB,AF,06,&3C8
190 DATA F6,ED,79,21,3B,08,77,21,&35B
200 DATA 8B,12,77,21,4C,1C,3E,C3,&29E
210 DATA 77,CD,37,BD,FB,C3,90,92,&518
220 DATA F5,AE,77,F1,23,0B,C6,0A,&409
230 DATA F6,80,5F,78,B1,7B,20,F0,&489
240 DATA C9
250 INPUT "INFINITE LIVES(Y/N):",Y$:
    IF UPPER$(LEFT$(Y$,1))="N" THEN
    POKE &A066,0
260 INPUT "HARMLESS BULLETS(Y/N):",
    Y$: IF UPPER$(LEFT$(Y$,1))="N"
    THEN POKE &A06A,0
270 INPUT "IMMUNITY FROM ENEMY
    CONTRAPTIONS:",Y$:IF UPPER$(LEFT$
    (Y$,1))="N" THEN POKE &A070,0
280 CALL &A000
```

The second listing, for the second part of *Army Moves*, gives infinite men.

```
1 ' Army Moves (part II) -- tape
2 ' by Kevin McCaughey
3 ' Amstrad Action    August 87
10 N=0:CHK=0:L=70:MODE 1
20 FOR I=&A000 TO &A085
30 READ A$:J=VAL("&"+A$):POKE I,J
40 N=N+1:CHK=CHK+J
50 IF N=8 THEN N=0:READ AMOUNT: IF
   CHK<>AMOUNT THEN PRINT"ERROR IN
   DATA LINE";L: END ELSE IF N=0
   THEN CHK=0:L=L+10
60 NEXT I
70 DATA AF,CD,0E,BC,21,AF,39,11,&360
80 DATA 00,00,3E,16,CD,A1,BC,CD,&34B
90 DATA 6A,3A,21,40,A1,11,00,00,&1B7
100 DATA 3E,16,CD,A1,BC,21,40,A1,&380
110 DATA 01,26,02,3E,8D,CD,75,A0,&2D6
120 DATA 21,86,A1,01,E0,01,3E,3D,&2A5
130 DATA AE,CD,75,A0,21,40,A1,11,&3A3
140 DATA 00,BB,01,26,02,F3,ED,B0,&374
150 DATA DD,21,00,BF,11,4F,00,CD,&2EA
160 DATA 67,BB,DD,21,00,C0,11,00,&2F1
170 DATA 40,CD,67,BB,DD,21,1E,05,&350
180 DATA 11,58,8E,CD,67,BB,01,00,&2E7
190 DATA F6,ED,49,3E,C9,21,09,92,&4BF
200 DATA 77,AF,21,69,08,77,CD,37,&333
210 DATA BD,FB,C3,58,93,F5,AE,77,&580
220 DATA F1,23,0B,C6,0A,F6,80,5F,&3C4
230 DATA 78,B1,7B,20,F0,C9
240 INPUT "INFINITE MEN(Y/N):",Y$: IF
    UPPER$(LEFT$(Y$,1))="N" THEN POKE
    &A060,0
250 CALL &A000
```



Into the Eagle's Nest

Glenn Pinnock of Basingstoke has run a gauntlet of guards to tell us that if you type DAS CHT on the hi-score table of the Pandora game it gives you infinite health. Pity you can still get trapped by running out of ammo.

Short Circuit

Peter Featherstone of Leeds has sent in a couple of pokes for Ocean's search-n-shoot game. The first poke is for part one of the game – which unlocks doors and prevents certain security checks.

The second poke, for section two, gives No 5 invulnerability to everything but water and mudpits. Both pokes use Method 1.

```
1 ' Short Circuit (pt I) -- tape
2 ' by Peter Featherstone
3 ' Amstrad Action    August 87
10 MODE 1: MEMORY 14766: LOAD ""
20 FOR f=&BE00 TO &BE4B: READ a$
30 POKE f,VAL("&"+a$): NEXT
40 CALL &BE00
100 DATA 3e,c3,32,e2,39,21,14,be
110 DATA 22,e3,39,21,ff,ab,11,40
120 DATA 00,c3,af,39,3e,a8,32,00
130 DATA 02,21,45,e5,22,01,02,f3
```

Scooby Doo

Mad Monk (?) fresh from the asylum somewhere in North Staffs has sent in a weird batch of pokes for Elite's cartoon-like game. Remove the pokes you don't want. Disk only.

```
1 ' Scooby Doo -- disk
2 ' bt the Mad Monk
3 ' Amstrad Action    August 87
10 OPENOUT"y": MEMORY &16C9
20 |USER,1: LOAD"SCOOB1",&16CA
30 LOAD"SCOOB2",&68E8
40 POKE &7C29,&C9 'remove monks
50 POKE &7860,&C9 ' can't fall
60 POKE &7808,&C9 ' wide ladders
70 POKE &77B3,&C9 ' spirit plane?
80 POKE &7838,&C9 ' go thru walls
90 POKE &77F6,&C9 ' Scooby skates
100 CALL &66E8
```

[redacted]

```
140 DATA f1,c9,dd,21,00,bf,11,4f
150 DATA 00,cd,4e,bc,3e,c3,32,1b
160 DATA bf,21,3a,be,22,1c,bf,c3
170 DATA 00,bf,3e,18,32,7e,0d,32
180 DATA 63,0c,21,18,fc,22,9e,0d
190 DATA c3,0a,02,00
```

```
1 ' Short Circuit (pt II) -- tape
2 ' by Peter Featherstone
3 ' Amstrad Action    August 87
10 MODE 1: MEMORY 14766: LOAD ""
20 FOR f=&BE00 TO &BE63: READ a$
30 POKE f,VAL("&"+a$): NEXT
40 CALL &BE00
100 DATA 3e,c3,32,e2,39,21,14,be
110 DATA 22,e3,39,21,ff,ab,11,40
120 DATA 00,c3,af,39,3e,a8,32,00
130 DATA 02,21,45,e5,22,01,02,f3
140 DATA f1,c9,dd,21,00,bf,11,4f
150 DATA 00,cd,4e,bc,3e,c3,32,1b
160 DATA bf,21,3a,be,22,1c,bf,c3
170 DATA 00,bf,dd,21,33,0b,11,cd
180 DATA 60,cd,c9,03,af,32,7c,0c
190 DATA 32,46,20,3e,18,32,06,1f
200 DATA 32,dd,1e,32,98,1e,32,fc
210 DATA 1b,3e,c9,32,07,1e,c3,0a
220 DATA 02,00,00,00
```

The Curse of Sherwood



Infinite lives and permanent use of the map are provided by **Stephen Stokes** for Mastertronic's game. Enter using Method 1.

```
1 ' Curse of Sherwood -- tape
2 ' by Stephen Stokes
3 ' Amstrad Action    August 87
10 a=&BF00
20 READ v$
30 IF v$="*" THEN CALL &BF00
40 POKE a,VAL("&"+v$)
50 a=a+1:GOTO 20
60 DATA 06,00,11,00,c0,cd,77,bc
70 DATA 21,c0,0d,cd,83,bc,cd,7a
80 DATA bc,21,7b,a6,11,df,ab,01
90 DATA bc,98,ed,b8
100 DATA 3e,00,32,ac,66 'lives
110 DATA 3e,00,32,6f,75 'map
120 DATA c3,0a,aa,*
```

Hydrofool



It's that **Peter Featherstone** chappie once more. This time he has delivered a prevent-Sweevo-from-rusting poke for FTL's game. Use Method 1.

```
1 ' Hydrofool -- tape
2 ' by Peter Featherstone
3 ' Amstrad Action    August 87
10 MODE 1: OPENOUT"y":MEMORY &7CF
20 LOAD"": POKE &865,&C3
30 POKE &866,0: POKE &867,&BE
40 FOR f=&BE00 TO &BE3B: READ a$
50 POKE f,VAL("&"+a$): NEXT
55 CALL &700
60 DATA 3e,c3,32,75,75,21,23,be
70 DATA 11,1c,83,01,0c,00,ed,b0
80 DATA 21,2f,be,11,47,96,01,0d
90 DATA 00,ed,b0,0e,ff,21,34,71
100 DATA cd,16,bd,20,41,4c,41,4e
110 DATA 20,53,55,47,41,52,20,28
120 DATA 30,35,33,32,20,36,31,33
130 DATA 30,35,34,29
```

AMAUROTE

Mastertronic's graphically superb MAD game has been hacked by **Peter Featherstone**. Infinite lives and bombs have been supplied. You can fire a bomb even if there is one already on the screen – the first one will disappear, mind. Method 1.

```
1 ' Amaurote
2 ' by Peter Featherstone
3 ' Amstrad Action    August 87
10 MODE 1
20 FOR f=&BE00 TO &BE23
30 READ a$
40 POKE f,VAL("&"+a$)
50 NEXT
60 CALL &BE00
100 DATA 21,00,40,11,00,31
110 DATA 3e,16,cd,a1,bc,30
120 DATA f3,21,16,be,22,24
130 DATA 40,c3,00,40,af,32
140 DATA 44,9d,32,a0,8d,32
150 DATA 97,8d,c3,d4,26,00
```

Grand Prix Simulator

Several people have contacted us with the cheat for the Code Masters racing game. All you have to do is type the word TRACK followed by the letter of the track you want to start on, A to N. Then while holding down the letter for the track, press 1 or 2 to start the game.



Several people have also contacted us with a tip for the Mastertronic shoot-em-up. When you've got a high score type jing it baby into the table and a new option will appear on the menu. This gives you a megalaser.

This month's winners

This month's winner of the big prize is **Peter Featherstone**. Runners-up are **Neil McCawley, Nicholas Pavis, Stephen Stokes, Kevin McCaughey** and **Phil Howard**.

One person not getting any congratulations is Colin Ward, who nicked two pokes from *ACU*. Apologies to Justin Garvanovic, whose hard work Colin copied. We now have a method of checking for Justin's pokes so don't bother sending copies of them to us: we'll probably send them back accompanied by two guys with baseball bats.


NOW FOR COMPUTER
MASK™
The Battle Continues!!!
Join with the forces of MASK, skilfully commanded by the brilliant strategist Matt Trakker and combat the evil of the villainous VENOM in their quest for domination of the world. No longer need you stand by and passively observe the evil deeds of Mayhem and his co-conspirators. Here is your chance to dig deep into your cunning and put your skills to the test against possibly the greatest master criminal the world has ever seen, fact or fiction. This classic conflict of good versus evil is portrayed with a realism and excitement that can only take its lead from the world's most famous collection of superheroes and supervillains. There are creations of adventure, there are creations of combat but there is not a creation quite like MASK!!!
SAY GOODBYE CONDOR
VENOM
MAYHEM!!
BRAD! THIS IS THUNDERHAWK HOLD ON, I'LL SOON BE ON HIS TAIL...
MASK™ AND THE ASSOCIATED TRADE MARK ARE THE PROPERTY OF KENNER PARKER TOYS, INC. (KPT) 1987
GREMLIN
CBM64/128 & Amstrad - £9.99 TAPE £14.99 DISK
Spectrum 48/128K - £7.99 TAPE
Gremlin Graphics Software Ltd, Alpha House, 10 Carver Street, Sheffield S1 4FS Tel: 0742 753423

THE PILGRIM

This month the Pilg sees double: Incentive launches a new label offering two games for £7.95. Is Double Gold worth the brass? Or should you save your ha'pennies for* Dungeons, Amethysts, Alchemists, 'n' Everything *– the first budget game to be rated as "not suitable for persons under the age of sixteen"? Have no fear, the Man with Rod and Staff, being over 16, can tell you all ... well, almost ...

Black Fountain / Sharpe's Deeds

Incentive Double Gold, £7.95 cass

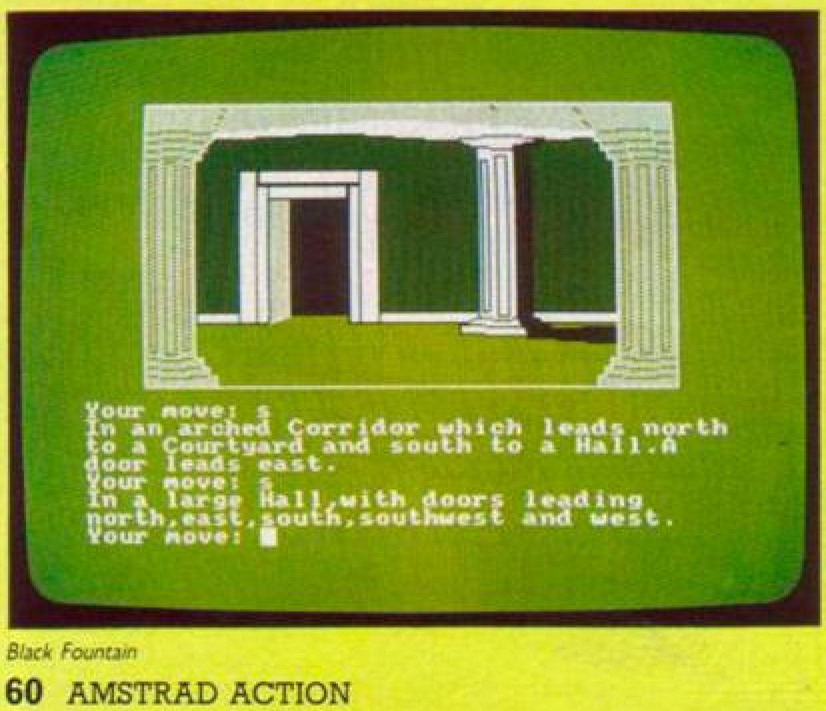
Pilg fans may remember a brief notice about Incentive's Gold Medallion series a while back. Intended as a showpiece for the best of adventures created using Incentive's *Graphic Adventure Creator* utility, the first two releases (*Winter Wonderland* and *Apache Gold*) were very worthy and – let's face it – too expensive. £7.95 is really a bit much to pay for what is effectively a home-brew *GAC* game, however well it's been designed.

The Incentive people must have taken note, because now they're at it again, offering this time two games for the same price. Have they succeeded in offering us good value?

Well, the first point to make is that you're still paying almost four quid each for the two games. Bearing in mind that games like *SubSunk* are available for half this amount, that would still seem to be a bit on the steep side. But then little nuggets like *SubSunk* don't appear all that often, so perhaps Incentive will find the wallets coughing up the readies for Double Gold.

Both these games were created by one Linda Wright, whom Incentive describes as an "up-and-coming software author". There's no doubt that Linda has an eye for a good puzzle and she arranges the locations and problems of her games in such a way as to ensure that you really have to spend a lot of time to-ing and fro-ing before you can achieve your objectives.

In *Black Fountain*, your objective is to secure a certain crystal and in the process rid the world of a couple of undesirables. As Shardor, servant of the court of Loesp, you must sally forth across the countryside of Planet Areth and put the boot into Abhaldos, who is rumoured to invented some hideous home-brew that now bubbles forth as the Black Fountain. In doing so you must also locate your three brothers, Charmos, Fulisto, and Tigros.



Black Fountain

There's only one trouble with *Black Fountain*, and that is that I can't vouch for its lasting interest. The Pilg sat down and found the going a mite too easy for his liking. On the other hand, the way the game is laid out does demand that you cover almost every location (and there are about 100 of these), so, however easy the puzzles, finishing the game is quite an arduous task.

From the programming point of view, the game holds together well and has all the usual good (and bad) points of *GAC*. The pics are tidy, colourful, but repetitive, the response times occasionally a little slow, and the text well-written but necessarily rather brief. Nice points include being able to talk to most of the characters (though few will say anything of interest) who have attractively eccentric (and slightly Spanish-sounding) names.

Sharpe's Deeds is superficially quite different – you must hunt around a village in Somerset for twelve treasures and a set of deeds to prove your inheritance of Uncle Ferdinand's valuable estate.



Sharpe's Deeds

Sharpe's Deeds isn't as easy to crack as *Black Fountain*, and the Pilg found himself becoming steadily more involved as the score mounted up. Playing it so soon after *Black Fountain*, however, alerted me to the many similarities of style – in particular the general rule that to get past any character, or to extract an object or information from them, all you have to do in most cases is give them something. After a while this becomes slightly aggravating – you just check your inventory and try GIVEing everything you've got until something clicks.

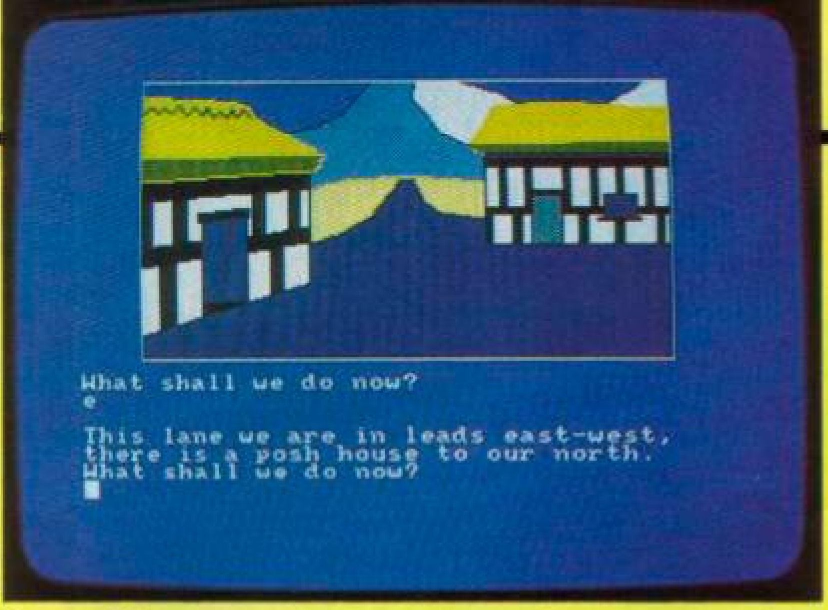
So, fellow Pilgs, a couple of bijou little byte-oramas, but nothing worth mugging your local dealer for. I have some thoughts about the future role of *GAC* and other adventure utilities, but for these thou wilt have to look elsewhere on these illustrious pages.

Atmosphere 55% Interaction 62% Challenge 55%
AA rating 58%

Mountains of Ket / Top Secret

Incentive Double Gold, £7.95 cass

Mountains of Ket is, as most Crusaders will know, a very old game that first sprang into life on a Spectrum back in 1742, or thereabouts. It's the first part of a trilogy in which you must cross the aforesaid mountains and defeat the malignant Vran Verusbel (maddest of the Mad Monks) and the malevolent Delphia (most beautiful woman in the world).



Mountains of Ket

Quite why anyone should want to destroy the most beautiful woman in the world is beyond the Pilg's comprehension, but I leave other minds more macho than mine to dream up their own exciting reasons.

It's not often that one sees an old game reprogrammed using a modern utility. For the sake of nostalgia I'd like to give this game a clean bill of health, but it leaves a lot to be desired.

First, the blurb on the cassette cover boasts "interactive characters". Well, I suppose a character with a message can be called interactive – but that's hardly a big deal, is it? Let's be honest about this, there is absolutely no way using a commercially available adventure creator that you can program a proper interactive character worthy of the name. The closest I've seen are Fergus McNeill's whimsical *Boggit* characters, or Maid Marion in *Robin of Sherlock* (both *Quill*ed), but there really isn't much red-hot interaction in Ket-land.

Secondly, the game shows signs of carelessness in programming. After buying a strong horse, your inventory shows that you are carrying "a strong horse". OK, so the Pilg is 11 stone of rippling muscle, but even I don't make Arnold Schwarzenegger look like Ronnie Corbett. The horse, methinks, should have been handled differently.



Top Secret

Another example. You go into the shop, see a `vial of potion` and `Buy vial`. You're then told that there's `No one here to buy it from`, despite the shopkeeper standing right in front of you. The problem here is that the program isn't telling you that... ahem... it doesn't actually understand the word `vial`. It expects you to enter `Buy potion`.

I can just imagine someone at Incentive demonstrating this program by typing in `Buy large bottle of desoxyribonucleic acid`, and when the prog replies as before, pointing out proudly that the program understands the basics of recombinant genetics.

All is not lost, however. There are some novel features here. The program handles money properly (in that you can actually count your coins and must budget properly for expenditure) and also has a combat routine. The latter involves the use of three variables, *prowess*, *energy*, and *luck*, that are assigned to the player at the beginning of the game in varying proportions.

When you duff up a fellow traveller, or someone comes over all heavy on the mountain path, the program puts you into combat mode and you each take it in turns to swing at the other combatant. If you're hit, you have a chance to dodge (depends how lucky you are), and in each round you have a chance to escape. A word of warning – think twice before knocking off any of the villagers, as their companions turn a wee bit savage when they see what you've done.

The other game in this set is *Top Secret*. Ugh. I'm afraid the Pilg didn't like this game much. Let's get it straight, there's nothing actually *wrong* with it but I'm afraid that after a few years adventuring one gets heartily sick of penetrating yet another nuclear installation in order to stop some deadly missile being used to pervert world sanity (or what's left of it).

Why do we have to go through this scenario all over again? Surely original ideas aren't that hard to come by? Even killer dolphins disguising themselves as duchesses and swallowing the Queen at a Buckingham Palace garden party would be preferable to the old ultra-whizzo-top-secret-military-base-deadly-missile-gosh-shriek-yawn number.

Anyway, for what it's worth, the game has shorter-than-average location descriptions (even for space-hungry *GAC*) and at one point kills the player off for no better reason than he or she decides to go north. The old sudden-death trick, forcing you to restore or reload, is now universally condemned by good adventure writers everwhere. OK, so if there's a cliff to the north, going north kills you, but at least *say* there's a cliff (or whatever) to the north. A location that serves no purpose except to kill the player on entry is poor design, says moi.

Perhaps Incentive will get back to me and say that there's an object in the game that would have enabled me to get past that hazard. In that case I'll eat the dead rats I found in the sewer... but I think in this instance my stomach's safe.

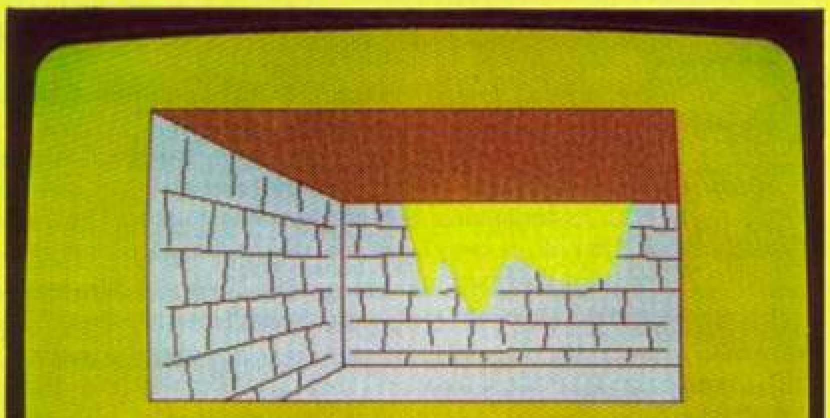
Playing these two games made me a little more understanding of Incentive's view that Linda Wright (see previous review) is an "up-and-coming software author". She certainly puts up a better game than the ones on offer here.

Atmosphere 50% Interaction 55% Challenge 60%
AA rating 55%

Dungeons, Amethysts, Alchemists, 'n' Everythin'

Atlantis, £1.99 cass

This game, rather like CRL's *Dracula*, has attempted to gain a market by slapping a "Not Suitable For Persons Under The Age of 16" message on the cassette cover. Does that mean it's dirty? Or does it mean that people under 16 would be intellectually incapable of understanding its complex, convoluted prose? Or does the game feature passages of such blood-curdling horror that younger minds would be blasted into a terror-induced psychosis, never again to leave their comfy padded cells?



DAA 'n' Everythin'



COMPUTER CRIMES.

Prepare yourself for the greatest adventure yet – The GUILD of THIEVES. The ultimate challenge for master criminals everywhere.

Your mission, to gain membership of the prestigious Guild of Thieves. But first you must successfully return from a mythical isle within Kerovnia having stolen its hidden treasures.

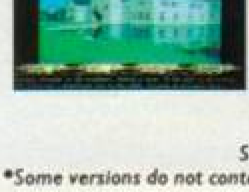
Now the prospect of looting and pillaging the island may seem enticing, but you'll need all the ingenuity you can muster, and of course criminal cunning as you try to unravel clue after clue and solve a wealth of devious puzzles.

With its sensational text and dazzling graphics The GUILD of THIEVES is a quest that's sure to tax the most resourceful mastermind. After all, as every Guild member knows, only crime pays.

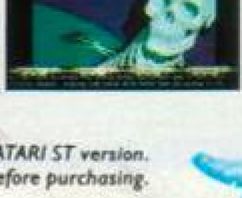
The GUILD of THIEVES incorporates 29 remarkable scene-setting graphics and the kind of complex intrigue and surprise that has established the Magnetic Scrolls team as worthy award winners.*

The Guild of Thieves available from Rainbird Software at £24.95 (or less) . . . It's a steal.

The GUILD of THIEVES







Out now on ATARI ST, AMIGA, APPLE MACINTOSH, AMSTRAD PCW 8256/8512 and APPLE II (text only). Coming soon on CBM 64/128, AMSTRAD CPC 6128, ATARI 800/130 and IBM PC.

At all good retailers or direct from Rainbird Software, First Floor, 74 New Oxford Street, London WC1A 1PS. Telephone: 01-240 8838.

Screenshots stolen from the ATARI ST version.
**Some versions do not contain graphics. Please check before purchasing.*

Well, ho-hum, it actually doesn't mean any of these things, fellow Pilgys. Wot we have here is none other than a very light-hearted attempt to parody the contemporary adventure scene. In parts it's extremely amusing – other bits don't come off quite as well.

As Gayleigh, the Gay and Proud Warrior, you saunter forth into the land to defeat the evil Tite-Arz by locating a mystic amethyst that has been stolen from the Alchemist's tower. Players of *Colossal Cave* will soon recognise the terrain at the beginning of the game, but there have been some disturbing changes...

You know this game is going to be different when the obligatory Dwarf passes by and "throws a flower at you. As he saunters away, you notice an unusual swivel of his hips...". Hmmm...

A short while later, at the underground lake, you find yourself upon a Sandie Shaw. Ho ho... And if the descriptions aren't long enough for you, the authors soon cheer you up with a "heavy, oak, strong, big, thick, sturdy, impressive, tall, hard, iron-banded, smooth yet slightly splintered wooden door". Hum...

I may seem a little reserved about this game, but the fact is that I did laugh a lot while I played it. For the most part the program is completely harmless and there's nothing ruder than *Private Eye* or *Leather Goddesses*. It's been programmed by Plasma Touch (one of whose games has already been reviewed in an earlier issue by the Pilg) and shows a refreshingly relaxed approach to satire and sex. There's a Pattern Room (which is simply a pattern, "created by the *Graphic Adventure Creator*"), a squeaky voice ("ooooh my preciousssss"), and even thrusting stalactites (which should have been stalagmites, but I guess one mustn't be too pedantic).

In fact, there's a good deal of thrusting throughout the game, as well as a good deal of doubtful prose. The Pilg really gritted his teeth when confronted by "the most least good taste wallpaper you have ever seen", or the "simply enormous cave" which is "big and large to the observing eye". Ugh... When will adventure-game publishers start applying to their product the similar skills that other publishers apply to the written word? And it's about time, in the Pilg's opinion, that Steps Were Taken in this direction.

Frankly, games just don't come any cheaper than this – either in content or in price. As it is, for £1.99 you just can't lose.

Atmosphere 65% Interaction 50% Challenge 50%
***AA* rating 65%**

GET it ... or DROP it?

The Pilgrim addresses the thorny problem of buying adventure software – for both the experienced and inexperienced player

A few guidelines...

Choosing adventures is not an easy task. If you're new to the world of interactive text games, it can be well-nigh impossible. Furthermore, the quality and price of software in this category varies so wildly that one unfortunate purchase can put you off forever. On this page, I've done my best to offer readers a reliable and straightforward guide to adventure buying, together with some hints for beginners who may not know exactly what to expect.

One of the first places you're liable to look is in columns such as this one. As a general rule, remember that of all computer games, adventures tend to be the most difficult to review objectively. Naturally there are certain points that you look for – poor spelling, bugs, skimpy text, lack of originality – but in the final analysis the question of whether a game will appeal to readers can be answered only by the readers themselves.

Bear this in mind as you make your choice from the following list. I've chosen 15 titles that have received endorsement from readers as well as myself. Whichever one you choose, I hope you enjoy it...

For beginners...

If you're new to adventure games, you need to make your purchasing decisions even more carefully. The fact is that many people, accustomed to sizzling arcade visuals and slick animation, are distrustful of adventure software. Sooner or later, however, they decide to give it a try – and all too often they throw the game in the bin with disgust. That doesn't mean that adventures are rubbish – it simply means they've made the wrong choice.

The first thing you need to understand is that there are different types of game. First, there are the games that have small vocabularies. They will inevitably reject a large number of your inputs. If games like these are to succeed, they need clever, original, and logical puzzles to baffle and intrigue the player. And of course they need good on-screen presentation and an original scenario. You'll find a couple of titles in this tradition in the list here. Many of these games nowadays are programmed by people at home using an adventure writing utility like *The Quill* or Incentive's *Graphic Adventure Creator (GAC)*.

You shouldn't expect much from these simple games – but at the same time you shouldn't expect to pay much for them either. At any rate, they should keep you busy for a few hours and they'll certainly frustrate, baffle, and confuse you as well.

Next, you get the slightly more ambitious game, with a larger vocabulary, quite a few locations, and generally some "hook" to set the program apart from its competitors. The hooks are usually either humour, high-standard graphics or outrageous originality. There are adventures dealing with killer bunnies, vampires, boggits and far-off planets.

From the programming point of view, these games tend to be no more sophisticated than those in the first category, but they do everything on a grander scale – dozens of locations, or very long text descriptions, or stunning pictures. Some are programmed using *Quill* or *GAC*, but in these cases the authors have made a particular effort to customise these utilities in their own image, perhaps by splitting the game into many parts, or creating unusual possibilities for inputs. You'll find examples of this sort of games here as well.

Finally, you get the real hard-core adventure software. These programs are almost without exception written by software houses that specialise in adventure programs and have devised their own writing systems. Such systems will let you enter compound sentences ("Get the brown dog and drop it in the sack"), have large vocabularies of 1,000 words or more, feature lengthy and vividly written location descriptions, and will keep you busy for days, weeks, sometimes even months. The only drawback here is that sometimes they tend to be rather expensive, or require disk-based systems to work. You can check out more about these "state-of-the-art" games in the Big Three box elsewhere on this page...

The Big Three...

There are currently three big names on the adventure-software scene in the UK. Each company represents a completely different style of game.

First there's **Level 9**. This is a small family firm – brothers Peter, Mike and Nick Austin program in Bracknell; parents handle production and accounts in Weston-super-Mare – that has been writing adventure software now for over five years. Unlike the two companies below, it has so far remained committed to the cassette-based market in the UK. This imposes some necessary limitations on its style. Everything has to fit in ram, so memory for pictures, data on interactive characters, and text are obviously limited.

Level 9's achievement, however, has been to challenge these limitations and come up with some truly excellent software. You shouldn't expect wonderful high-res full-screen graphics or amazingly complex conversations with other characters, but these games have a unique charm and are distinctly cheaper than those of Infocom or Magnetic Scrolls.

(On disk, watch for a new Level 9 title to be released through

Rainbird in the next months: a three-part adventure called *Knight Orc*.)

Next, there's **Infocom**. This US-based company was bought out in 1986 by Activision, itself originally American, but that doesn't seem to have brought any major changes in its output or quality of work. Its games are exclusively disk-based, very cleverly written, and have no graphics – you won't need pictures with text this good. Infocom's adventure system is very forgiving when it comes to typing in your commands – mistakes are thoughtfully (and often humorously) dealt with, and in addition you'll find that some Infocom games feature excellent opportunities for interaction with other computer-controlled characters. Their plots are, almost without exception, excellent. The only drawback is price, but if you can afford £20+ for a game you won't be disappointed.

Finally, there's a new company on the stage – **Magnetic Scrolls**. This small programming house in South London has recently released *The Pawn* and – possibly by the time you read this – *Guild of Thieves* for the Amstrad machines. They drawn on the British tradition of including graphics – some of the best you'll ever see. The Magnetic Scrolls games also tend to be slightly eccentric in their scenarios – but always entertaining. Finally, they take a few leaves from Infocom's book by sticking to disk-only and including good facilities for interaction with other characters. But they won't cost you quite as much.

Ten games worth trying...

How they're rated...

The Pilg has come up with two special ratings for these games. "Difficulty" gives you an indication of how hard you are likely to find making progress; "Challenge" tells you how far there is to go!

This means that a game with a difficulty of 100% and a challenge of zero would have one practically impossible puzzle to solve which might frustrate you for weeks – but once you've solved it, there wouldn't be anything else to do.

On the other hand, a game with a difficulty rating of zero and a challenge of 100% would have an infinite number of locations to explore before you reached your objective, but no puzzles to solve at all!

This dual rating will help you to choose the game most suited to you. If you're the sort of person who likes crossword puzzles and logical (as well as illogical) problems, you'll prefer a game with a higher difficulty rating. On the other hand, if you're more interested in exploration, fantasy, and a feeling of "being there" you should check for a higher challenge rating. In general, the higher the challenge rating the meatier the game – whereas a difficulty rating over 80% should give novices cause for thought before purchase.

Finally, I've tried to avoid mentioning too many obvious choices – most people will have heard of *Hitchhiker's Guide to the Galaxy* from Infocom or *The Hobbit* from Melbourne House. Here, however, are 10 games that the Pilg reckons are worth shelling out for...

Classics...

Heroes of Karn – Interceptor, £1.99 cass

Difficulty 70%   Challenge 65%

Explore Karn, find the heroes, get them to help you save the planet. The game has graphics, a small but effective vocabulary, and some challenging puzzles. Best of all, for what nowadays is a rather primitive program, it has an attractive scenario and whimsical atmosphere that has kept it on the shelves of many players. Now excellent value for £2.

Jewels of Darkness – Rainbird/Level 9, £14.95 cass, £19.95 disk

Difficulty 75%   Challenge 92%

This is a compilation of three early Level 9 games, reprogrammed to add graphics and larger vocabularies. It's particularly notable for including *Colossal Cave Adventure*, a faithful adaptation of the first-ever adventure. Despite the reprogramming, these games retain their classic flavour – searching for treasure and grappling with the Demon Lord in a magical underground empire. The puzzles are in some cases very tricky – but the game designs are excellent. One for mappers and gold-diggers. Poor graphics, but a pic for every location. These games never had graphics when they were first released, and it's debatable if they need them.

If you enjoy magic and exploration but can't afford this collection, you can buy the games separately (*Collossal Adventure*, *Dungeon Adventure*, and *Adventure Quest*) from Level 9. You should also try *Red Moon* and the *Price of Magik* – in the same vein but more recent releases with great emphasis on spells.

Puzzlers, teasers, and pretty pics...

Seabase Delta – Firebird, £1.99

Difficulty 62%   Challenge 50%

An honest little gamette with neat, unambitious graphics, a small vocabulary and some enjoyable puzzles. Don't expect much, but it comes in at under two quid and is a good example of a simple product using *GAC*. There's also a "prequel" – *SubSunk* – for the same price and equally well worth trying out if you enjoy *Seabase Delta*.

Bestiary – P. Williams, £2.50
(12 Godesdone Road, Cambridge, CB5 8HR)

Difficulty 55%   Challenge 55%

A neat, text-only home-brewed game where the animals lend you a hand. A good example of an attractive program produced by an amateur using a utility, resulting in a simple adventure with very restricted vocabulary but lots of charm.

Robin of Sherlock – CRL, £7.95

Difficulty 70%   Challenge 67%

Programmed by humourists Delta 4, this game satirizes two earlier releases – *Robin of Sherwood* and *Sherlock*. It's an excellent example of how to get the best out of *The Quill* and nothing whatsoever out of Maid Marion. Don't expect a massive vocabulary, but do expect to be entertained by both the wit and the puzzles – some of which are rather difficult. Some nice graphics too. Games in a similar vein include *The Boggit* and *Bored of the Rings*.

Warlord – Interceptor, £1.99

Difficulty 63%   Challenge 60%

One of Interceptor's simple-format games distinguished by some truly excellent artwork and a vivid atmosphere in Roman Britain, now a bargain £2. Text is a bit skimpy, but these games still managed to sell well in their time at over three times the price.

Back to the future...

Silicon Dreams – Rainbird/Level 9, £14.95 cassette, £19.95 disk

Difficulty 85%   Challenge 92%

A trilogy of Level 9 programs dealing with mankind's future efforts to colonize the Planet Eden. Author Pete Austin used the scenarios of spaceship, planet and future society to convey uneasiness at our technocratic tendencies. *Snowball*, the first game, is notoriously difficult, and the final adventure, *Worm in Paradise*, has a coded transport system that only the best minds will crack without cheating. A picture for every location, but don't expect great art – the quality of the pics varies enormously; the worst are little more than colourful shapes.

State of the art...

Wishbringer – Infocom/Activision, £24.99 disk only

Difficulty 78% Challenge 89%

Magic and mystery from the masters of the genre – this time at their "introductory" level, which means that the prog is designed for first-time players. You stumble into another world, seeking the local shopkeeper's cat, which has been kidnapped by the Evil One. Probably the only game with a vicious poodle puzzle. Should appeal to both experienced and inexperienced players. The best thing about Infocom games is the way their parser (the bit that "understands" what you type in) deals with a wide range of inputs and struggles manfully to respond – helpfully, wittily, or at least honestly. Text-only.

Suspect – Infocom/Activision, £24.99 disk only

Difficulty 80% Challenge 87%

The Pilg's favourite adventure – though Anita Sinclair of Magnetic Scolls rather dampened his enthusiasm by saying that she had solved the game "by accident". As a journalist in fancy-dress at a smart country house party, you discover a murder victim. Round her neck is your very own lariat. Astonishingly well designed and programmed character interaction (you can even overhear other people's conversations) make up for a slightly limited number of locations. Text-only. Like all Infocom games, it comes in a smart box with a number of absorbing goodies apart from the disk.

The Pawn – Magnetic Scrolls/Rainbird, £19.95 disk (6128 only)

Difficulty 80% Challenge 88%

The first Mag Scrolls game, originally developed for the QL machine. Excellently programmed with sliding graphic screens that slip down over the text at your command. The pics are some of the best seen on the Amstrad CPC machine (perhaps *the* best) and the game's parser is very sophisticated. There are a number of different objectives in the game; you interact with wizards, kings and even a guru. Certainly the most impressive UK adventure to date, but unfortunately not available on cassette. Watch out for Mag Scrolls' next release, *Guild of Thieves*, due out very soon.

AA small ads

For sale

CPC 6128 with colour monitor and DK'Tronics converter to convert monitor into a colour television, plus software on disk. £300. R West. ☎ (0782) 32 2592.

CPC 464 green monitor, modulator. Perfect condition, still boxed. Any offers considered; must be sold. Replies in writing: John Hogan, 1 Avon Ave, Jarrow, Tyne and Wear, NE32 4BU.

CPC 6128, colour monitor and second disk drive (FD1) and dust covers, boxed, £350. Also 13 three-inch disks, £10. All excellent condition. ☎ (0733) 78560.

CPC 6128, colour monitor, joystick. Only 6 months old, yours for £275. ☎ 01-794 2321 ext 44, ask for David. Weekends or after 6pm ☎ 01-906 4487.

Screenvision for sale. £50 only. ☎ (0932) 55636 after 6pm, ask for Stuart.

CPC 464 with CTM 640, DDI-1, DMP 2000, hundreds of pounds of business and games software. And 6'×3' business desk, three drawers and one cupboard. No reasonable offer refused. ☎ Bolton (0204) 68249.

Amstrad RS232C (not Pace RS232). Cost me £50, sell for £30. Guaranteed not faulty. Good for anybody thinking of going into communication era. M Mohd-Salleh ☎ 01-581 5657 or 01-581 1543.

Dk't Silicon disk and 64k expansion for 464 (£25). DK't 464 Speech Synth (£15). Box of ten unused Amsoft 3-inch disks (£15). Second 3-inch drive for any CPC (£50). ☎ (0935) 85 0958 after 7:30pm.

***Bombscare* map** and playing tips. Please send letter enclosing large sae and £1 cash to Toby Mace, 5 Shires Way, Yateley, Camberley, Surrey, GU17 7SX. Hurry!!!

Seduction, adult computer game for over-16s only. Arcade adventure with over 50 disgusting screens. Send £5 (p&p incl) to David Shaw, 21 Balfour Court, Kilmarnock.

***Amslog* password** protection for CPM Plus on CPC 6128. £6.95 disk only. Write to Tony Hoyle, 11 Dorset Road, St Annes, Lancs, FY8 2ED.

Amstrad Pagemaker: 10 new fonts plus two pages of clipart. £6 on disk. Graham Paterson, 10 Lilac Grove, Dunfermline, Fife, KY11 5AR.

Wanted

Disk drive for 464. Write with details to Paul Hickman, 25 Chesham Drive, Laindon, Essex, SS15 4AH.

First disk drive or printer for Amstrad 464 complete with leads. ☎ (06845) 5175.

Services

6128 owners!!!!! Tape-to-disk conversions only £1 including p&p. Send original tape(s) plus a disk and £1 per tape to R Shepherd, 32 Egerton Rd, Streetly, Sutton Coldfield, W Mids, B74 3PG.

Eproms programmed. All Basic or machine-code programs transferred (disk or tape), subject to copyright. £12 for the first 16k eprom and £5 per additional 16k. Same-day service. Gareth ☎ (04974) 440, evenings.

Eprom service: Transfer your software to 16k eprom. Only £8. Send sae and your details. Andrew MacPhee, 10 Bayview Crescent, Little Oakley, Harwich, Essex, CO12 5ED.

We haven't, of course, checked out these small-advertisers, so must say to readers: "at your own risk."

This new section of the magazine offers you the chance to speak directly to the huge waiting world of CPC owners – or would-be owners.

You can place an ad of up to 30 words for just £5. So you could use it to sell a printer or launch a user group or publicize a piece of software you've written.

One thing you *can't* advertise is the sale or swap of software you've purchased. Such ads can be misused by software pirates.

Just fill in the application form and send it to us together with payment. We'll then place the ad in the next available issue (published 2–7 weeks after we receive your order.)

Send this form to: AA small ads, Future Publishing Ltd, 4 Queen Street, Bath, BA1 1EJ

Order form

Please place the following advertisement in the next available issue of *Amstrad Action*.

Name ....

Address ....

....

Telephone ....

I enclose payment of £5 by Cheque / PO / Access / Visa

Credit card number ....

Credit card expiry date ....

Please make cheques and POs payable to Future Publishing Ltd

Classification: ☐ For sale ☐ Wanted ☐ Services ☐ User groups ☐ Other

Write your advertisement here, one word per box. If you want your name or phone number printed, they must be included in the boxes.

K & M COMPUTERS
DISCOUNT SOFTWARE

ADVENTURES	CASS	DISC
Murder on Atlantic	£11.95	£1595
The Pawn 6128 Only	—	£15.95
The Sydney Affair	£8.50	£1295
Hitch Hikers Guide		£21.95
The Hobbit	£9.95	—
Silicon Dreams	£11.95	£1595
Jewels of Darkness	£11.95	£1595
Mandragore	£12.95	£1595

COMPILATIONS	CASS	DISC
Comp. Hits Five	£6.95	£1095
Comp. Hits 6 Vol II	—	£11.95
Comp. Hits 6 Vol III	—	£11.95
Hit Pack Six	£8.50	£1195
5 Star Vol 2	£8.50	£1195
Comp. Hits 10 Vol III	£8.50	—
Sold a Million I	£8.50	£1195
Sold a Million II	£8.50	£1195
Sold a Million III	£8.50	£1195
Amtix Accolades	£8.50	£1195
Hit Pack	£8.50	£1195
Konami Coin Op Hits	£8.50	£1195
Now Games 4	£8.50	—
Classic Collection	£8.50	£1195
Durell Big 4	£8.50	£1095

STRATEGY/SIMULATION	CASS	DISC
Footballer of Year	£7.50	—
Leaderboard	£8.50	£1195
Scalextric	£8.50	£1195
Silent Service	£8.50	£1195
Ace	£8.50	£1195
Acrojet	£8.50	£1195
Strike Force Harrier	£8.50	£1195
President	£7.50	—
TT Racer	£8.50	—
Leaderboard (Tournament)	£4.50	£950
Bat'field Germany	£10.95	£1495
Trivial Pursuit	£11.95	£1595
Brian Clough F F	£11.95	£1495

ARCADE	CASS	DISC
They Stole a Million	£7.50	£1195
Academy	£8.50	
Spy v Spy II	£8.50	
Dr Livingstone	£7.50	
Tai-Pan	£7.50	
Head Over Heals	£7.50	£1195
Enduro Racer	£8.50	£1195
Leviathan	£7.50	£1195
Cosmic Shock Absorber	£7.50	
Elite	£12.50	£1595
Starglider	£11.95	£1595
Pulsator	£7.50	
Express Raiders	£8.50	£1195
Mario Bros	£7.50	
Dogfight 2187		£11.95
Rana Rama	£7.50	£1195
Saboteur II	£6.95	£1095
Metrocross	£8.50	£1195
Army Moves	£7.50	£1195
Slapfight	£7.50	
Kinetik	£6.95	£1195
Paperboy	Phone	
Trap	£7.50	
Arkanoid	£7.50	£1195
World Games	£8.50	
Asphalt	£8.50	£1195
Ballbreaker	£6.95	
Hydrofool	£7.50	
Prohibition	£8.50	£1195
Auf Wied Monty	£8.50	£1195

ACCESSORIES	
Amsoft 3" Discs each	£2.85
AMX Mouse & Art Package	£5995
Cover Set PCW	£11.95
Cover Set DMP 2000	£4.50
MP2 Modulator	£28.95

JOYSTICKS	
Cheetah Mach 1	£14.50
Konix Speedking	£11.95

BUS/UTIL	DISC
Art Studio 6182 only	£15.95
Mini Office II	£15.95
Plan-It	£15.95
Adv. Art Studio	£20.95
Adv. Music System	£24.95
Protext	£21.95
Masterfile III	£34.95
Tasprint	£10.95
Tascopy	£10.95
Graphic Adv. Creator	£21.95
Pagemaker	£42.95

PCW GAMES	
Head over Heals	£12.95
Fairlight	£12.95
Batman	£12.95
Cyrus II Chess	£13.95
Tau Ceti	£16.95
Tomahawk	£16.95
Strike Force Harrier	£16.95
Jewels of Darkness	£16.95
Silicon Dreams	£16.95
Starglider	£19.95
Scrabble	£16.95
Trivial Pursuit	£16.95
The Pawn	£22.95

PC1512 GAMES	
Cyrus II Chess	£15.95
Winter Games	£15.95
Summer Games	£15.95
Jewels of Darkness	£15.95
Pitstop II	£15.95
Silent Service	£20.95
Mena 18 Golf	£15.95
F15 Strike eagle	£17.95
Spitfire Ace	£15.95
Solo Flight	£15.95
Starglider	£15.95

* ALL PRICES INCLUDE POST AND PACKING * IN STOCK ITEMS SENT BY RETURN * ALL BUDGET ITEMS STOCKED AT NORMAL PRICE * WE ALSO HAVE AN EXTENSIVE RANGE OF CPC SOFTWARE FOR HIRE-FREE MEMBERSHIP — SEND FOR DETAILS * CASH WITH ORDER OR SEND FOR FULL LISTS * EEC & EUROPE AT NO EXTRA CHARGE * OTHER OVERSEAS ADD £2 TO ORDER * BRITISH POSTAL ORDERS OR STERLING CHEQUES * 24 HRS. PHONE 0695 29046 * ALL NEW RELEASES ON DAY OF RELEASE *

******NEW******DIGITISING SERVICE******PHONE FOR DETAILS******NEW******

*** K & M COMPUTERS, 40 FAIRSTEAD, BIRCH GREEN, SKELMERSDALE, LANCS WN8 6RD ***

SUPA SOFT DISCOUNT SOFTWARE

TOP TWENTY AMSTRAD TITLES AT DISCOUNT PRICES

(3" AMSOFT CF-2 BOX OF 10 £25.99)

THIS MONTH	LAST MONTH	TITLE	464/6128	CASS PRICE	DISK PRICE
(1)	(1)	Mini Office 2	/ /	£12.00	£14.95
(2)	(2)	Konami Coin Op	/ /	£ 6.95	£10.95
(3)	(3)	Hit 6	/ /	£ 6.95	£10.00
(4)	(12)	Five Star 2	/ /	£ 7.25	£10.95
(5)	(–)	Silent Service	/ /	£ 8.25	£11.95
(6)	(–)	Big 4	/ /	£ 6.95	£10.95
(7)	(7)	Gauntlet	/ /	£ 7.25	£11.95
(8)	(8)	Trivial Pursuit	/ /	£10.95	£15.95
(9)	(–)	Martianoids	/ /	£ 6.95	£11.95
(10)	(–)	Rana Rama	/ /	£ 6.95	£10.95
(11)	(–)	Acro Jet	/ /	£ 7.25	£11.95
(12)	(3)	Sold A Million 3	/ /	£6.95	£10.95
(13)	(–)	Mercenary Compendium	/ /	£11.95	£15.95
(14)	(14)	Prospell	/ /	N/A	£19.95
(15)	(–)	Nemesis	/ /	£ 6.95	£10.95
(16)	(16)	Protect	/ /	N/A	£21.95
(17)	(–)	Baby Boomer (Q. Pack)	/ /	£ 5.95	N/A
(18)	(18)	Monopoly	/ /	£ 7.25	£10.95
(19)	(–)	Scrabble	/ /	£ 7.25	£11.95
(20)	(–)	Auf Wieder Monty	/ /	£ 7.25	£11.95

SOFTWARE ALSO IN STOCK FOR THE PC/PCW PLEASE RING FOR DETAILS & PRICES

Post & Packing Inc. Overseas Orders Please Add £1.00 per tape. Mail order only Cheques/postal orders (Sterling only please) Made Payable to:

DISCOUNT SOFTWARE, Dept 1,210 Nicholls Tower, Harlow, Essex CM18 6EF

TELEPHONE (0279) 29076 WEEK DAYS ONLY PLEASE

JUNIOR-WORDPRO
CHILDREN'S WORD PROCESSOR
for Amstrad CPC 464/664/6128

REAL word processing for children. A clear, attractive program, with very simple operation – it comes with specially written turorials. Tested and approved by teachers.

Also useful for quick notes and letters. JUNIOR-WORDPRO is ideal for non-technically minded adults too!

£8.50 (Cassette) £11.50 (Disc)

Overseas please add £1

RAMASOFT (Dept A.A.)
6 Stile Plantation, ROYSTON
Herts SG8 9HP
Tel. (0763) 43715

NEW ENHANCED VERSION

DMP–2000/3000 BUFFER UPGRADE KIT

The printer buffer presently in the DMP2000/3000 is a 2K RAM. Most of this RAM is used by the printer's operating system leaving, on average, 1/2K as bufer space. Our upgrade kit contains a new static RAM which will increase the printer buffer by 6K (about 4 pages of text). This upgrade will also allow all of the Download Character Set to be re-defined thereby allowing the user to design his own special characters for use in scientific and other purposes. The kit is supplied with full pictorial instructions to allow the amateur to carry out his own modification.

Prices:- £5.50 (UK) EUROPE £6.75 REST OF THE WORLD £7.50

NEW SPEEDTRANS (V1.43) *NEW*

This is an enhanced version of the original SPEEDTRANS which will now transfer many more games AUTOMATICALLY ***all transfers are now made DIRECTLY TO DISC.***

SPEEDTRANS is specifically designed to transfer those programs that have been written using the SPEEDLOCK protection method.

SPEEDTRANS will transfer both normal length (43K) games and also long (47K) games automatically.

SPEEDTRANS transfers the main program and, in most cases, the opening screen.

SPEEDTRANS also offers the possibility of saving the screen of the longer games (RAID for example).

SPEEDTRANS contains a unique INKS program which will automatically find the MODE, BORDER and INK colours used in the opening screen.

SPEEDTRANS will ask you for a filename under which it will save the transfer.

SPEEDTRANS wil transfer the following SPEEDLOCK programs to disc: Barry McGuigans Boxing, Batman, Bounty Bob Strikes Back, Bruce Lee, Hacker, Daly Thompsons Decathlon, Kong Strikes back, Jet Set Willy, Nomad, Ping Pong, Rambo First Blood II, Way of the Exploding Fist, Yie Ar Kung Fu, Gyroscope, Frankie goes to Hollywood, Winter Games, Dambusters, Scrabble, Kung Fu Master, Samantha Fox, Raid, Impossible Mission, World Series Baseball, Green Beret, Rescue on Fractalus, Monopoly (includes playing screen), Cludeo, Matchday, "V", Hunchback II, I Spy, Spy-Trek etc.

Prices:- £5.50 (UK) EUROPE £6.75 REST OF THE WORLD £7.50
(UPGRADE YOUR EARLY SPEEDTRANS – £2.50 (UK)
EUROPE £3.75 – REST OF THE WORLD £4.50)

LOOK **VIEWTEXT** (ON TAPE) Reduced to **£2.00** While stocks last.

Viewtext will allow you to get more pleasure from games and adventures etc. You can find the word tables in binary files which help you get more enjoyment from your programs.

GOLDMARK SYSTEMS
51 Comet Road, Hatfield, Hertfordshire, AL10 0SY
Please telephone for further info (07072) 71529

SHEKHANA COMPUTER SERVICES

ORDER BY ACCESS + VISA CREDIT HOTLINE 01-348-2907 (24 HRS)

** AMSTRAD **	OUR PRICE
Barbarian – D2	7.50
Gauntlet – D2	7.50
Guild of Thieves – D4	12.95
Trivial Pursuit – D4	12.95
Road Runner – D2	7.50
Prohibition – D2	7.95
Silicon Dreams – D4	12.95
Nemesis – D2	6.95
Batt'field Germany – D3	10.95
Slap Fight – D2	6.95
Paper Boy – D2	6.95
Elite – D4	12.95
Winter Games –D2	7.50
5 Star Games II – D2	7.95
Pas'ger of Wind – D2	10.95
Martianoids	7.95
+ Plan It – D4	12.95
Scrabble – D2	7.95
+ Mini Office II – D4	12.95
Laser Basic – D4	12.95
Arkanoid – D2	6.95
Ace – D2	7.95
Academy – D2	7.95
Scalextric – D2	7.95
Shao Lins Road – D2	6.95
World Leaderboard – D2	7.95
Azimuth (Head Align)	7.50
Shockway Raider – D2	6.95
Theatre Europe – D2	7.95
Nick Faldos Golf	3.99
Balloon Challenge – D2	5.95
Sabatour II – D1	5.95
T.T. Racer – D2	7.50
The Great Escape – D2	6.95
Mercenary – D4	7.95
The Last Ninja – D2	7.50
Enduro Racer – D2	7.50
Tai-Pan – D2	6.95
Monopoly – D2	7.95
L.C. People – Disk	12.99
Fairlight – D2	7.50
Tomahawk – D2	7.50
Cholo – D4	12.95
Bomb Jack II – D2	6.95
Starglider – D4	12.95
Silent Service – D2	7.95

** AMSTRAD **	OUR PRICE
Tank – D2	6.95
Mystery of Nile – D2	5.95
Lazer Genius – D4	12.95
The Final Matrix – D2	5.99
Durell Big 4 – D1	7.95
Zynaps – D2	6.95
Konamis Golf – D2	6.95
Annals of Rome – D3	10.95
Footballer of Year – D2	7.50
Enduro Racer – D2	7.95
Spitfire 40 – D2	7.50
Thing Bounces Back – D2	7.50
Dragons Lair II – D2	7.50
Leader Board – D2	7.95
Metro Cross – D2	7.50
Auf Wied'en Monty – D2	7.50
Ikari Warrior – D2	6.95
Elite Hit Pack – D2	7.95
Elite Six Pack – D2	7.95
Elite Trio Pack – D2	7.95
Hydrofool – D2	6.95
Dog Fight 2187 – D2	7.50
Jail Break – D2	6.95
Top Gun – D2	6.95
The Music System – D4	12.95
Advance Music System	24.95
Conflict 1 – D3	10.95
Levithan – D2	6.95
Advance Art Studio	21.95
The Art Studio	16.95
+ Masterfile III	34.95
Pocket Wordstar	45.00
World Games – D2	7.95
*** ACCESSORIES ***	
+ Action Replay MK 3	34.95
ESP Light Pen (464)	17.50
Miracle Imager	49.95
Discovery Plus	12.99
Master Disc	11.99
Multiface II	46.95
Euromax Non-Autofire	16.95
Disc Wizard	29.95
Comp Pro 5000	14.95
Cheetah Mach I	14.95
Konix Joystick	12.99
Print Master	12.99

** AMSTRAD **	OUR PRICE
Wizball – D2	6.95
Vulcan	7.50
Edge Classics – D2	7.95
Aliens – D2	7.95
Army Moves – D2	6.95
Sentinel – D2	7.95
Murder on Atlantic – D4	12.95
Sold a Million 3 – D2	6.99
Sigma 7 – D1	5.95
Sentinal – D2	7.95
Hitchhikers Guide	24.95
Ace of Aces – D2	7.95
Game over – D2	6.95
Dr. Livingstone – D2	6.95
10th Frame – D2	7.95
Head Over Heels – D2	6.95
Acrojet – D2	7.95
Bismark – D2	7.95
Warlock – D2	6.95
Spy V Spy II – D2	7.50
The Eagles Nest – D2	6.95
Shadow Skimmer – D2	6.95
Bounty Hunter – D2	7.50
G.Gooch Cricket – D2	7.50
Glider Rider – D2	6.95
Strike Force SAS – D2	7.50
Quartet – D2	7.50
Wonder Boy – D2	7.50
*** PC 1512 ***	
+ Supercalc 3	59.95
Starglider	16.95
Topgun	14.95
The Great Escape	14.95
+ Wordstar 1512	59.95
+ Payroll – (Sage)	99.99
*** PCW ***	
Leader Board	17.50
Trivial Pursuit	16.95
Head over Heels	12.95
Tomahawk	16.95
Star Glider	22.50
+ dBase II – (1st Soft)	99.99
The Pawn	21.95
PSI-5 Trading Co	16.95
ATC + Southern Belle	14.95
+ Plan – It	19.99

D = Disk version available. D1 = AT 11.95,D2 = AT 12.95,D3 = 14.95,D4 = AT 17.50

Special offer while stocks last 3" disks box of 10 only 26.95 inc. P+P

FOR MAIL ORDER: CHQ/P.O PAYABLE TO
SCS (A.A.) 655 GREEN LANES, LONDON N8 0QY

P+P INCLUDED IN U.K. EUROPE ADD £1 PER ITEM. ELSEWHERE ADD £2 PER ITEM

TELEPHONE 01-340-8565 S.A.E. FOR FULL LIST

+ DENOTES ITEMS ONLY AVAILABLE FROM: S.C.S. 655 GREEN LANES, N8 0QY

Personal callers please produce this advert at our shop for above discounts at S.C.S. UNIT 5, 221 TOTTENHAM COURT ROAD, LONDON W1R 9AF (Near Goodge Street Tube Station) OPEN 6 DAYS A WEEK 10.00 – 18.00PM or at 655 GREEN LANES LONDON N8 0QY

ACCESS AND VISA HOT LINE PLEASE RING 01-348-2907 / 340-8565 / 631-4627

Credit card orders despatched same day – subject to availability

** NEW RELEASE SUBJECT TO RELEASE FROM SOFTWARE HOUSE, PLEASE RING TO CONFIRM AVAILABILITY OF NEW RELEASES*

DRILLER

DRILLER THRILLER

£300 worth of hardware and everlasting fame to be won

Budding superstars, reach for your assemblers now. Here's your chance for fame and fortune. By programming a special effect you can get your name up in lights on the new game from Incentive called *Driller*. Your reward will be £300 of the computer equipment of your choice – a really juicy prize.

Driller is still under development and Incentive is keeping details under wraps. All we know is that it features a graphic programming technique called "Freescape". This promises solid 3D graphics that you can walk in and around, just like being there.

The graphics are taken care of, so what Incentive needs are some superb sound-effects and border effects to match them. Naturally the Incentive people have come to *AA* readers to supply them.

The effects can be of any nature, but here are some ideas of what you could do:

- Laser fire (incoming and outgoing)
- Gun or cannon shot
- Explosive noise
- Reward tunes and effects
- Falling and rising noises
- Bumping and cracking into solid objects
- Dematerializing noise
- End-of-game noise or tune
- Graphical border effects
- Window-clearing effects

Incentive personnel will judge the entries themselves and the winner and runners-up will all have their effect featured in the game. The winner will get £300 worth of computer equipment, the effect inluded in *Driller*, a full credit in the *Driller* project and a copy of the game. The runners-up will get their effects included in the game along with a full credit and a copy of the game. The number of runners-up depends purely on the quality of the entries, but obviously Incentive will want to use as many as possible in the game.

Obviously you'll need fair technical skill to enter the comp, so here are the points you should bear in mind. You can send in as many entries as you like with the coupon. They should be on tape or disk together with clear details of how to load and run the effect. Each routine should be less than 500 bytes and supplied with a documented assembler listing.

The judges will be looking for good effects that are short as well. And of course they've got to be your own original work.

Send entries to: **AA Effects Comp, Incentive Software, 2 Minerva House, Calleva Park, Aldermaston, Berks, RG7 4QW**. Because it's a tricky competition you've got an extended deadline: **31 August**. The game itself will appear in the autumn – and we look forward to spreading fame all over the world for some of our readers.

FREESCAPE

SUBSCRIPTION SUPER-GIFTS!

Taking out a £16.50 subscription to Amstrad Action doesn't just guarantee you 12 issues of the magazine you love.

It also brings you a gorgeous piece of software completely free of charge!

For 464 owners there's Krakout on cassette, Gremlin Graphics' amazingly addictive Breakout game (an AA Rave in July).

Or, for 6128 owners, there's an AA special, a unique version of Arnor's widely-acclaimed spelling checker ProSpell. Some of the fancier features of the full version (RRP £29.95) have been removed, but Easy ProSpell still offers a lightning fast spell checking facility using the full dictionary of over 30,000 words.

You can use it with ProText or with other word-processors such as Tasword, WordStar and NewWord.

And as if that isn't enough, the disk also contains some special extras, including type-ins from past issues of AA. Overall, a pretty desirable thing to have.

So whatever machine you own, we've laid on the excuse you need. There can't be a better time to make sure you don't miss out on the Action.

FREE!

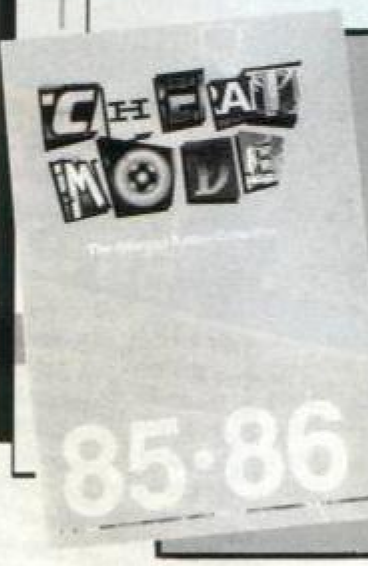
Choose either of these great gifts when you subscribe.

KRAKOUT

The cassette version of Gremlin's Rave arcade bounce-em-up. RRP is £9.95!

EASY PROSPELL

A stunning disk program which will allow you to spell-check text files against a 30,000 word dictionary.



CHEAT MODE

The Amstrad Action Collection 85-86

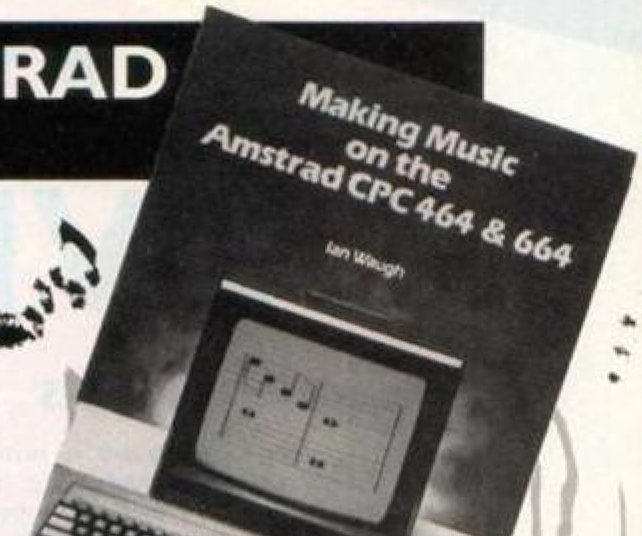
Now only £3.95 – save £3!!

We still have a few copies left of the publication no respectable games-player should be without. Under a single cover it gives you all the Cheat Mode and most of the game-maps printed in the first 16 issues of Amstrad Action. Literally hundreds of pokes, tips, mini-articles and maps are included. And to help you find your way around there's a special index allowing you to turn instantly to the game you need help on.

The book is built to last. It's printed on heavy-duty high-quality paper with a strong glossy cover. It looks good and we think you'll love it.

MAKING MUSIC ON THE AMSTRAD

Now only £3.95 – save £3!!



HOW TO ORDER

Use the form on the next page but one (the order code of the product you want is listed next to the form). Or telephone us with your credit card details on 0458-74192 (24-hour answerphone) or 0458-74011 (a human being in office hours).

Ian Waugh's 181 page book is aimed at allowing you to take full advantage of the Amstrad's sophisticated sound facility. Chapter and section headings include: What is Music?, The Sound Command, Programming Scales and Ptiches, ENV and ENT – the Volume and Tone Envelopes, Zaps and Zings and other things, Playing the Amstrad, Making Micro Music, Producing echoes, Delay effects, White noise, Simple sound effects, Designing a rhythm unit, Soundscapes, The Amstrad synthesizer, Altering the bass riff, Saving the tune, Using chords, Improving the melody, Sing-along-a-matic.

There are numerous program listings and examples to show you the way. Great value for any CPC owner with an interest in Sound.

DK'TRONICS DELIGHT

64K Memory Upgrade

£39.95 (for 464 and 664)



256K Memory Upgrade

£75 (for 6128)



FREE! when you buy a memory upgrade FREE!

The 64K Silicon Disc System

Normal price £29.95



Hungry for memory? Want to ram up your RAM? Here's a fantastic way of doing it which will give you the powerful DK'Tronics 64K Silicon Disc System COMPLETELY FREE OF CHARGE. You just buy a 64K memory upgrade for the normal price of £39.95 or (for 6128 owners) the massive 256K upgrade for £75, and we give you the Silicon Disc for nothing. That means an effective saving of £29.95, one of our best offers ever!

A 64K memory upgrade will allow your 464 or 664 to run many of the programs which can currently run only on a 6128, while the 256K upgrade offers 6128 owners vast extra storage. They simply plug into the back of your computer and are used in conjunction with the supplied "bank-switching" software.

The Silicon Disc System allows you to set up a 64K drive B (or C) which will operate faster than an ordinary disc drive (although data must be transferred off it before the computer is switched off.) The System operates from AMSDOS or CPM 2.2 (but not CPM Plus), and if you have a 464, you will also need a normal disc drive connected.

Just fill in the details on the order form over the page and let us give you something to remember.

HOW TO ORDER

Just turn on two pages to our mail-order section and use the form printed there. OR dial (0458) 74192 and give your credit-card and ordering details to our very friendly answering machine.

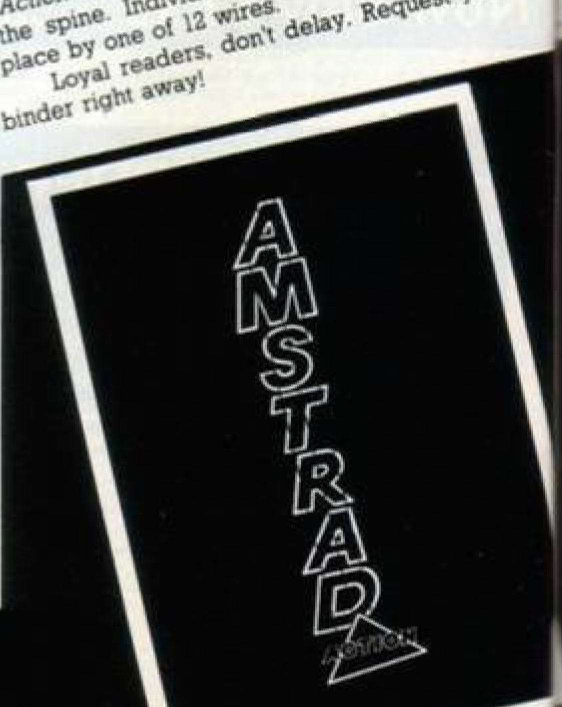
Save chaos! MAGAZINE BINDERS

Only £3.95

You asked for them and now you've got them. No more piles of *Amstrad Action* cluttering up your living-room carpet and getting (sob) battered to pieces. Instead a superb, custom-built binder specially designed to take 12 copies of *AA* and preserve them in pristine condition for prosperity – and easy future reference. (You'll also never be in doubt about how much longer your subscription lasts.)

These binders look every bit as good as the magazine, and include the name *Amstrad Action* embossed in blocked Newvap Gold on the spine. Individual magazines are held in place by one of 12 wires.

Loyal readers, don't delay. Request your binder right away!



AA DUST COVERS

2-piece set only £6.95

Ever wondered why you see so many computer dust covers advertised? It's because computers don't like dust. Over a period of time it can make them very ill indeed: disk drives and cassette decks in particular can suffer serious, sometimes fatal damage.

A set of dust covers provides a neat solution. And there's the added bonus of smartening up the hardware's appearance when it's not in use.

The specially-commissioned Amstrad Action covers are made from high-quality, waterproof PVC. They're coloured a gentle beige with smart blue trimming and matching Amstrad Action logo.

You can order a 2-piece set tailormade for your CPC system – just choose the correct order code from the list next to the order form.

PROTEXT + ROMBO



The ultimate word-processing combination

For Amstrad CPC 464, 664 and 6128.

PACKAGE 1 – save £15!!
- ROMBO ROM-box
- PROTEXT on ROM

Only £59.90 complete

PACKAGE 2 – save £30!!
- ROMBO ROM-box
- PROTEXT on ROM
- PROSPELL on ROM

Only £79.90 complete

PACKAGE 3 – save £45!!
- ROMBO ROM-box
- PROTEXT on ROM
- PROSPELL on ROM
- PROMERGE on ROM

Only £99.90 complete

There is a way of achieving blinding word-processing power on an Amstrad CPC. You take the best available package, custom-written to the Amstrad's strengths – that's *Protext*. And you run it from a ROM chip plugged directly into the back of your machine. That gives two big advantages – it loads instantly, and it doesn't use up any of your RAM, so you can handle long documents in memory.

The combination is startling. You'll find you can zoom around a 50K file at lightning speed, far more effectively than on any other CPC word-processor. Formatting, copying, search and replace are all done at a pace which puts to shame more expensive packages. And the speed isn't achieved at the expense of features – *Protext* boasts a fully professional spec. We know, because we use it to write Amstrad Action.

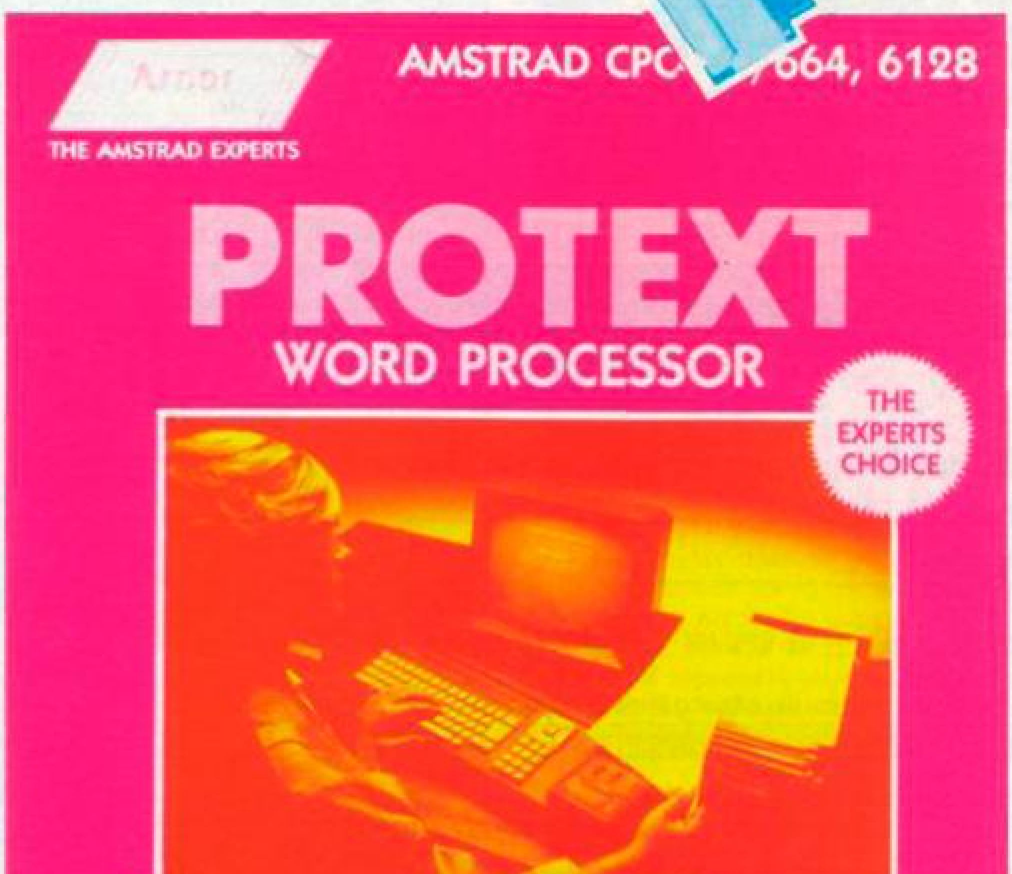
The *Rombo* ROM-board which we're supplying with *Protext* is probably the best available. It includes some clever electronics which allow you to run *any* CPC ROM on *any* of the CPC machines. And after you've fitted the*Protext* chip there's space for seven more should you get ROM-addicted. We're offering packages which also contain Arnor's superb spelling-checker *ProSpell* and mailmerger *ProMerge*.

Protext alone normally costs £39.95 on ROM while ROMBO retails at £34.95, the same price as *ProMerge and ProSpell* when bought separately. So our packages offer you a remarkable bargain. And if you'd prefer, we can also supply the software on cassette or disk at discounted prices – details on next page.

Whichever combination you choose, *Protext* is a must for serious word-processing users.

HOW TO ORDER

Use the form on the next page (the order code of the product you want is listed next to the form). Or telephone us with your credit card details on 0458-74192 (24-hour answerphone) or 0458-74011 (a human being in office hours).



GREAT GAMES

A cracking way of buying state-of-the-art software.

All these games have won AA Mastergame or Rave awards.

PASSENGERS ON THE WIND

Only £9.95 cass, £11.95 disk – save £3!!

Save money on this great AA Mastergame from Infogramme. "An innovative entertainment packed with originality and based on a succesful comic book." There are ten episodes featuring some outstanding screen pictures and excellent soundtrack.



PROHIBITION

Only £7.95 cass – save £2!, £11.95 disk – save £3!

A fast moving gun battle on the streets of New York. Line up your sights on an army of gangsters who pop out from all conceivable places in the run down city streets. Superb graphics and sound effects hallmark this addictive shoot-em-up from the French.



HEAD OVER HEELS

Only £6.95 cass – save £2!, £11.95 disk – save £3!

This is the arcade-adventure everyone's talking about. Stunning graphics. Mind-boggling puzzles. Weeks of intriguing, addictive entertainment. A stunning Mastergame from Imagine.

ARKANOID

Only £6.95 cass – save £2!, £11.95 disk – save £3!

Breakout is revived in one of the most addictive games you'll ever play. Bouncing a ball with a bat has never been so much fun as aliens swoop about you, lasers fire wildly and bricks and balls fly in all directions. An AA Rave from Imagine.

KRAKOUT

Only £7.95 cass – save £2!, £11.95 disk – save £3!

100 screens of bouncing mayhem as *Breakout* takes to the screen again. Everything's big, beautiful and bouncy as you encounter the demon ball swallower, explosive bricks and many more features. The horizontal alternative to *Arkanoid*.

Send this form plus payment to: **AA Mail Order, The Old Barn, Somerton, Somerset, TA11 7PY.**

ORDER FORM – AA 22

Name...Telephone no. (if poss)..............................

Address...

....Post code............................

Machine owned: ❑ CPC 464 ❑ CPC 664 ❑ CPC6128

Please send me the following items from the Amstrad Action special offer pages.

ORDER CODE	DESCRIPTION	PRICE

TOTAL PAYABLE

Please circle your method of payment: ACCESS • VISA • CHEQUE • PO

Make cheques + postal orders payable to FUTURE PUBLISHING LTD. If paying by credit card, please enter details:

CREDIT CARD NUMBER **EXP. DATE**



USE THESE ORDER CODES

Details of these products are given on this spread and the preceding pages.

ITEM	OUR PRICE	ORDER CODE
SUBSCRIPTION + KRAKOUT	£16.50	A230
SUBSCRIPTION + PROSPELL	£16.50	A231
CHEAT MODE BOOK	£3.95	A232
MAKING MUSIC ON AMSTRAD	£3.95	A233
PROTEXT + ROMBO		
package 1	£59.90	A201
package 2	£79.90	A202
package 3	£99.90	A203
PROTEXT on DISC	£22.95	A204
PROTEXT on CASSETTE	£16.95	A205
DK'TRONICS 64K UPGRADE (with free Silicon disc)	£39.95	A206
DK'TRONICS 256K UPGRADE (with free Silicon disc)	£75.00	A207
AA DUST COVERS		
CPC 464 mono	£6.95	A208
CPC 464 colour	£6.95	A209



HYDROFOOL

Only £7.95 cass – save £2!, £10.95 disk – save £3!

Gargoyle take their wacky robot Sweevo underwater for a new arcade adventure. As ever they've come up with some brilliant graphics and compulsive gameplay. Will Sweevo end up as a rust-em-up or can he pull the plug on the Deathbowl in time?

WANT A THINGI?

Only £5.95– save £2!

What's white, dangles papers next to your computer screen, and costs two pounds less than in the shops? Yes, a Thingi bought through Amstrad Action.

This remarkable computer accessory – an idea so simple it's ingenious – could dramatically ease your hours at the keyboard. All it is is a cleverly shaped piece of plastic that attaches via Velcro to the top of your micro. But with a Thingi on your CPC you can have documents, letters or program listings clipped right next to the screen in perfect reading position.

Any task involving copying off paper is thereby made much easier and faster. In fact, the clip supplied is sturdy enough to support an issue of Amstrad Action open, say, at the Type-Ins section.

The Thingi comes in two versions, one for positioning to the left of the screen, the other to the right – the Velcro adjustment allows easy readjustment or temporary removal.

A really sensible, cost-effective add-on for your CPC.



DISC BOX!



Only £9.95 – save £3!

This will do for your discs what an AA binder does for your AAs. Keep 'em tidy. The box is made from good-quality perspex and features a tinted, hinged, lockable lid.

It's specially designed to take Amsoft 3" discs and will hold 20 (including their cases). A classy way to keep your work top organised.

VIDI

Save £20 on the amazing digitiser – only £69.95!

An accessory which adds a dramatic new capability to your CPC. You can use it to 'grab' pictures from a video recorder or video camera and display them on your computer screen to save, edit (using an art software package such as *Art Studio*) or print out.

Draws the crowds at all the Amstrad shows with its impressive images, which can handle colour as well as mono. And now you can buy it for £20 off the recommended retail price of £89.95.

It comes complete with connections to any CPC and with software on disk.

CPC 664 mono	£6.95	A210
CPC 664 colour	£6.95	A211
CPC 6128 mono	£6.95	A212
CPC 6128 colour	£6.95	A213
THINGI		
left-of-screen	£5.95	A214
right-of-screen	£5.95	A215
DISK BOX	£9.95	A216
AA BINDER	£4.95	A217
GREAT GAMES		
Passengers on the Wind CASS	£9.95	A218
Passengers on the Wind DISK	£11.95	A219
Prohibition CASS	£7.95	A220
Prohibition DISK	£11.95	A221
Hydrofool CASS	£7.95	A222
Hydrofool DISK	£10.95	A223
Arkanoid CASS	£6.95	A224
Arkanoid DISK	£11.95	A225
Krakout CASS	£7.95	A226
Krakout DISK	£11.95	A227
Head Over Heels CASS	£6.95	A228
Head Over Heels DISK	£11.95	A229

24-HOUR HOTLINE
☎ 0458-74192

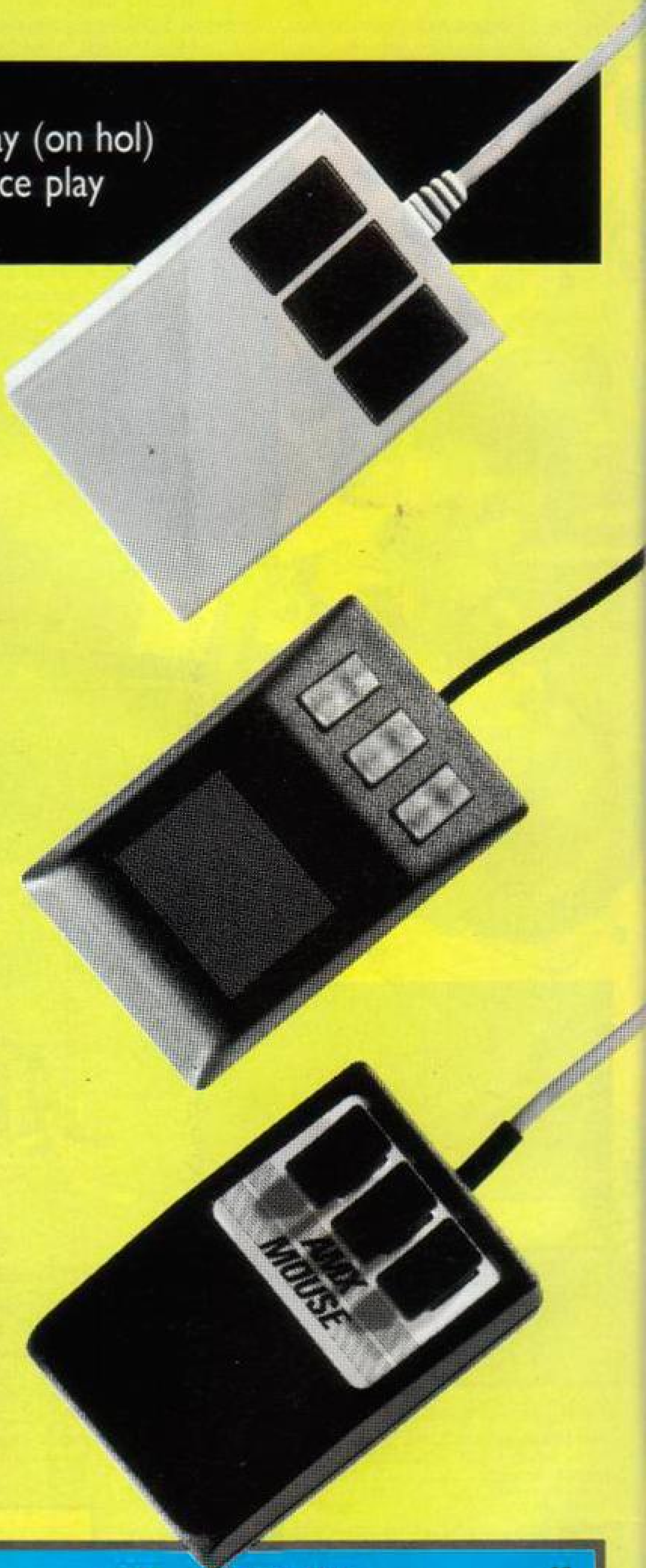
VISA

Access

If you own Access or Visa credit cards you can place your order by telephone at any time of day or night, seven days a week. Just dial 0458-74192 and be ready with your name and address, credit card number and expiry date, and the details of the software you wish to order. Alternatively, if you prefer a human being to an answerphone, you can ring 0458-74011 during office hours and ask for "Credit Card Orders".

REAR VIEW

Sugarman's away (on hol) – watch the mice play



HACKING THE CODE

Here's a tongue-in-cheek glossary of terms that crop up in reviews, cassette inlays, adverts and other computer-oriented areas. We've just come up with a few, but perhaps you'd like to send us your own interpretation of some jargon.

"Arcade smash hit" = somebody played it a couple of times in a bar in Belgium.

"Brilliantly playable" = I have absolutely no idea why I like this game.

"Kids from 8 to 80 will love it" = anyone can beat this in five minutes.

"Worldwide hit" = we sold one in Peru.

"Megagame" = we paid six figures for the licence.

"Utterly addictive" = spend weeks trying to find something interesting.

"Invaluable aid" = we don't know what it does either.

"You are equipped with the ultimate weapon" = a laser.

"A new concept in games" = we can't afford expensive arcade licences.

"Totally original" = nobody else was mad enough to release this nonsense.

"Realistic simulation" = so complicated it takes a lifetime to work out what you're supposed to do.

"Available now" = we're planning a conversion in six months.

"Real-time action" = the aliens move eight times faster than you do.

"Compilation of four great games" = three very old games and one that wasn't fit to be released on our budget label.

"Photon megablasto lazer zap" = gun.

"Proton diparticle decelerator" = shield.

"Over 200 frames of animation" = he blinks a lot.

"Smooth scrolling" = well it was on the other versions; can't think what happened to this one.

"Will you accept the challenge?" = don't expect us to help you after you've bought it.

"There's a slight delay on the game" = the programmer's in hospital after a hang-gliding accident; we'll have to start all over again.

"Delightful title screen" = gets worse from here on.

"I won't reveal any more of the game's secrets" = I couldn't get beyond the first screen.

"Fully compatible" = sorry, complete lie this one.

"Rush out and buy it" = I've just received a large, free lunch from the software house.

"Hilarious action" = it's laughably bad.

"Icon-driven adventure" = the programmer's illiterate.

"Comprehensive instructions" = and they're all in Spanish.

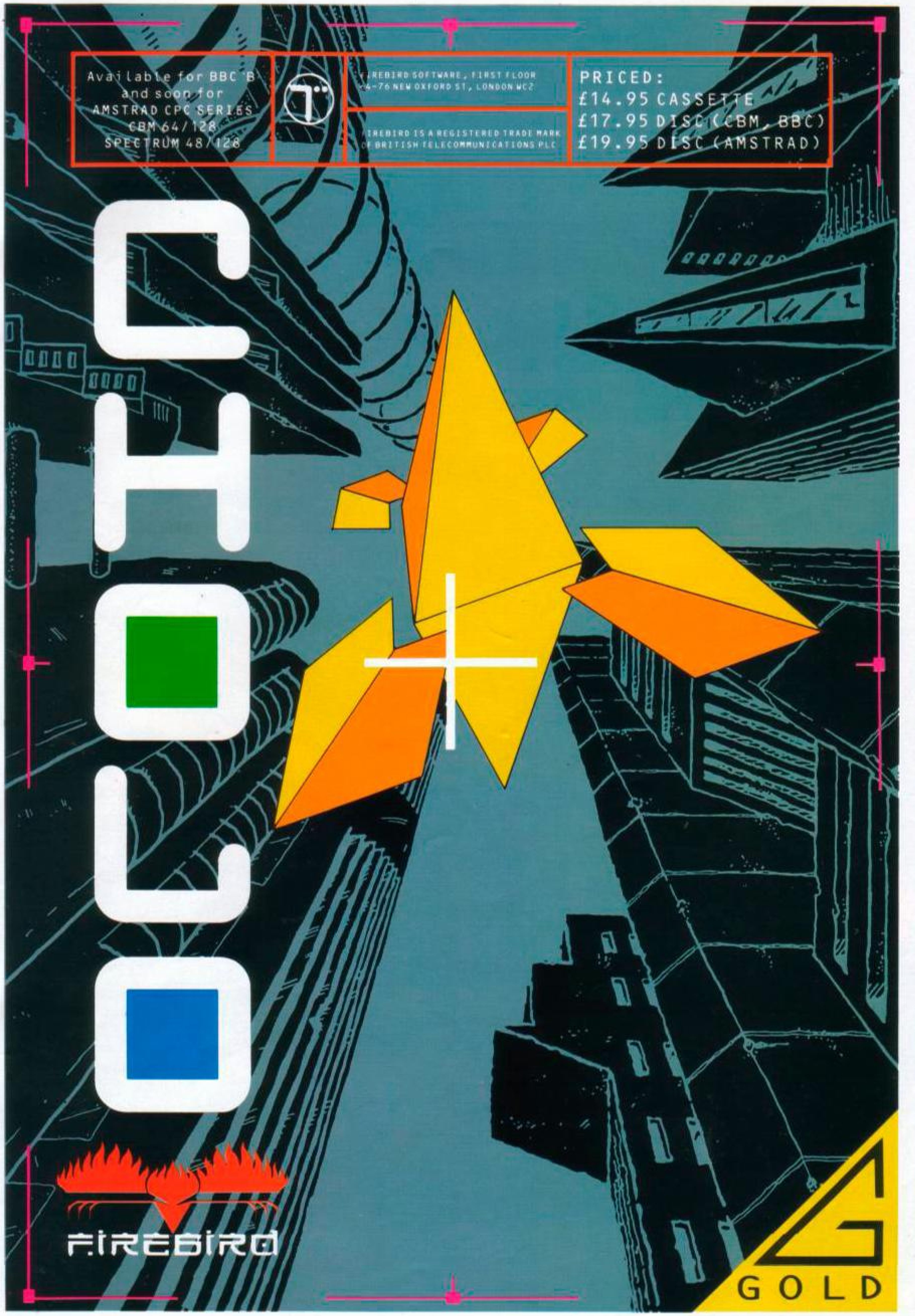
★

BREEDING MICE

We're a little worried here at the office about our AMX mouse. It appears to be multiplying itself. Since its incarnation we've discovered two new types. AMS claims it's because they've had to change the construction of the buttons and the ball, but we've got a sneaking suspicion that they're pan-dimensional beings studying us for research and breeding rapidly so as to take over the world. Our advice: keep 'em caged or wrapped in a plastic bag.

ADVERTISERS INDEX

 Tact is tops



Available for BBC 'B'
and soon for
AMSTRAD CPC SERIES
CBM 64/128
SPECTRUM 48/128
FIREBIRD SOFTWARE, FIRST FLOOR
64-76 NEW OXFORD ST, LONDON WC2
FIREBIRD IS A REGISTERED TRADE MARK
OF BRITISH TELECOMMUNICATIONS PLC
PRICED:
£14.95 CASSETTE
£17.95 DISC (CBM, BBC)
£19.95 DISC (AMSTRAD)
CHOLO
FIREBIRD
GOLD


"MISS THIS AND YOU'RE MISSING
THE BEST PROGRAM OF THE YEAR!" ZZAP! 64
WIZBALL
SPECTRUM
£7.95
COMMODORE 64
£8.95
AMSTRAD
SIZZLER
THE REVIEWERS ARE RAVING...
"WIZBALL IS THE FINEST RELEASE THIS YEAR"
'At last, something to enthuse about!... A breath of fresh air... A very individual concept... loads of neat touches... gorgeous animation... I could go on and on... the music and sound effects are great... It's a distinctly professional production, its style and content placing it head and shoulders above existing software... Wizball is simply brilliant – one of the best-presented, most graphically and aurally attractive and addictive pieces of software available.'
'Wizball is the finest release this year. The scenario and game design are so original... Playing is a joy... The graphics, sound and general presentation are second to none, and combined with the thoughtful attention to detail and the comprehensive series of game variations, you end up with something rather special. Don't delay, go to your software shop and say 'Mr. Retailer, swiftly hand me a copy of Wizball so that I can go home and play it forthwith.' 'An essential purchase.'
'A superlative piece of software. Slick in virtually every aspect, wholly original and immensely playable.' ZZAP! 64
Screen Star
'The sound throughout is great. This is definitely one groovey game... Enough imagination has gone into it to make it different and still keep it immensely playable. Graphics are fab!'
COMMODORE USER
ocean
Ocean Software Limited · Ocean House · 6 Central Street · Manchester · M2 5NS · Telephone 061 832 6633 · Telex 669977 Oceans G